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Ad5			Ad5			ts149			ts149			
37			39.5			37			39.5			°C
5			5			5			5			MOI
10 1 0.1			10 1 0.1			10 1 0.1			10 1 0.1			$\mu$ l

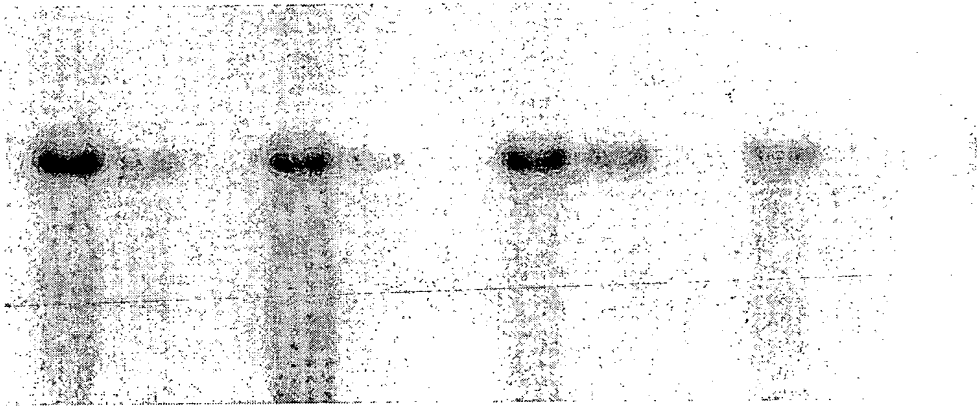
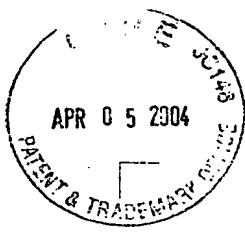


Figure 1



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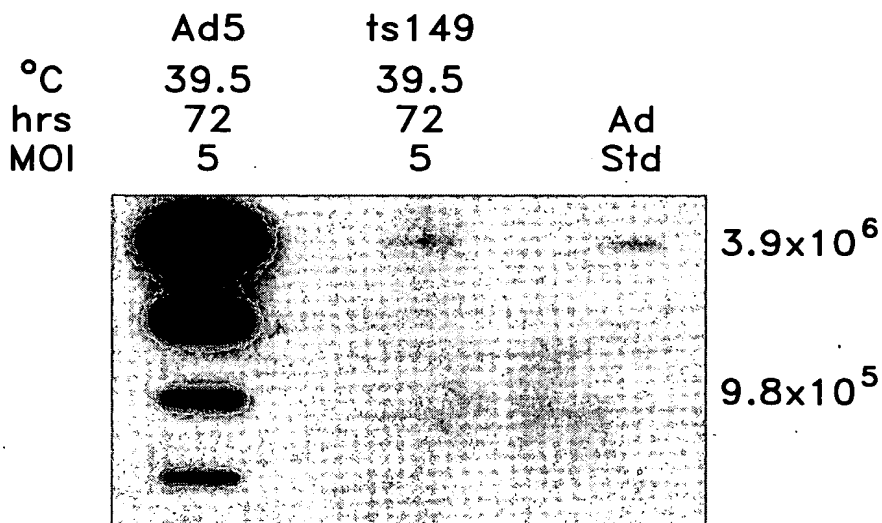
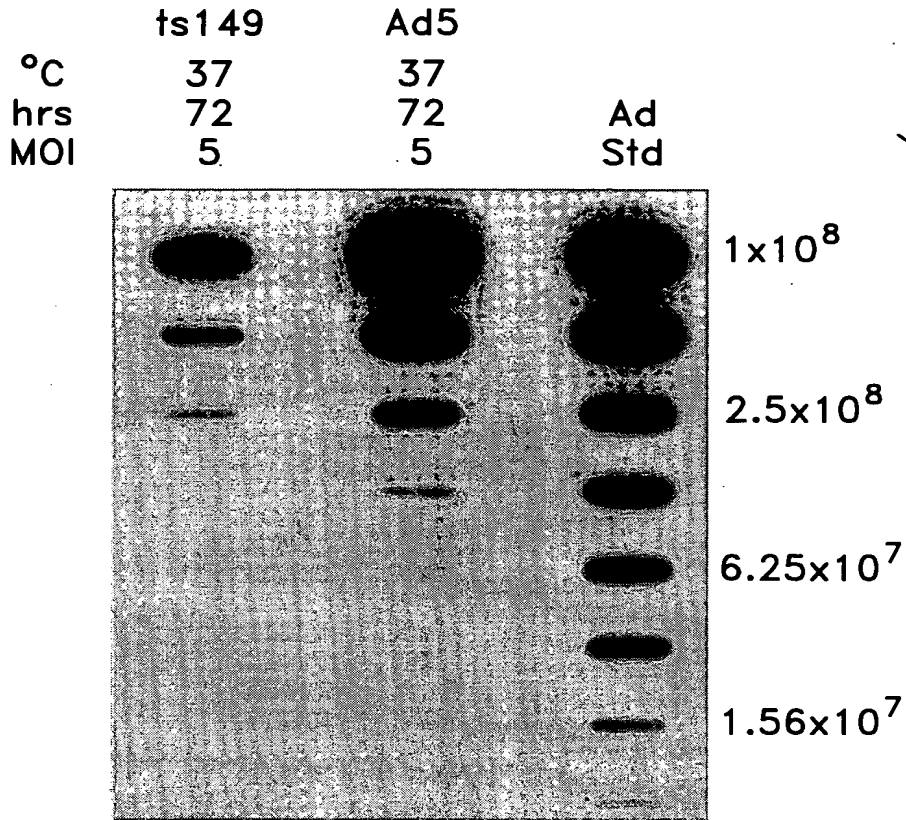


Figure 2



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ts149				Ad5	ts149		°C hrs	MOI
39.5				37	39.5			
72					72	96		
5 10 20 40					5	5		

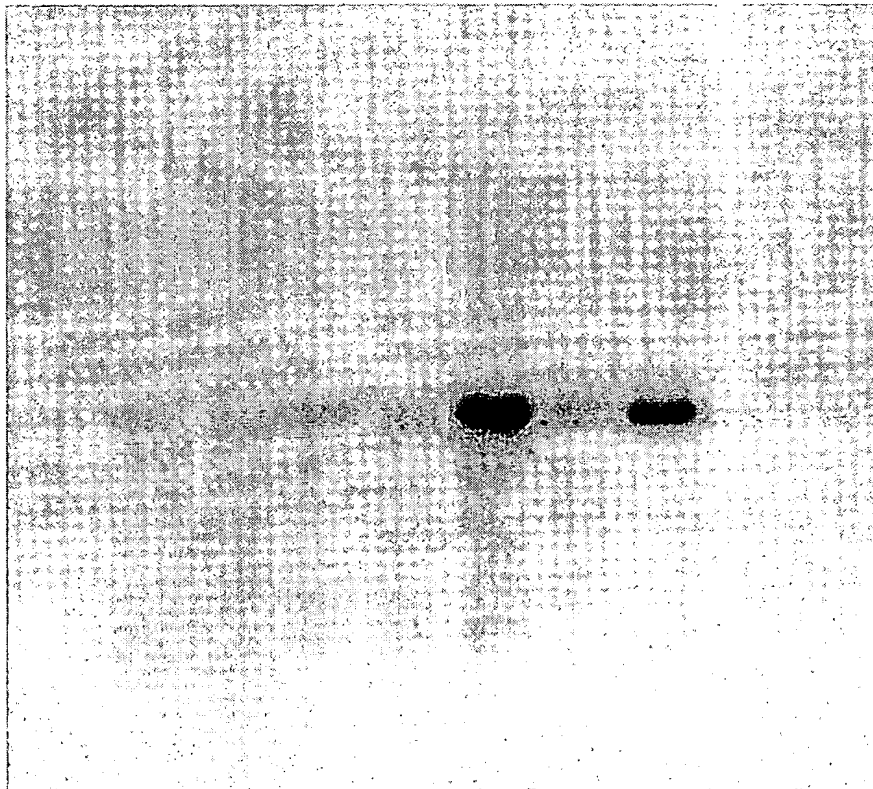
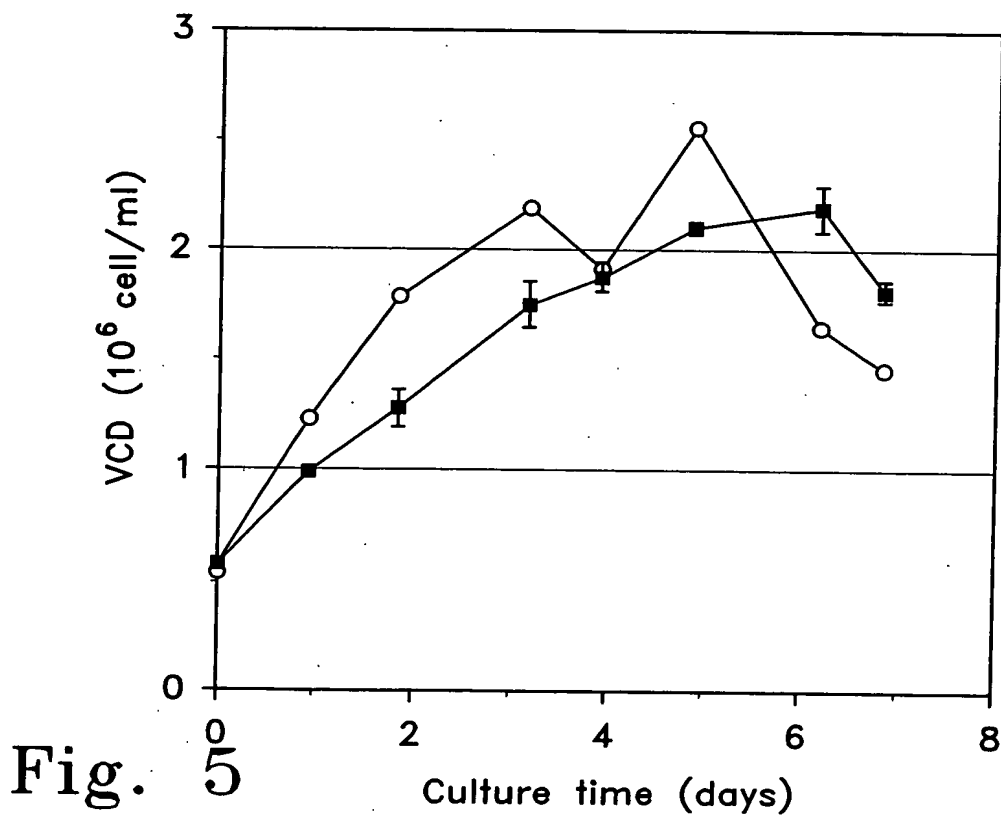
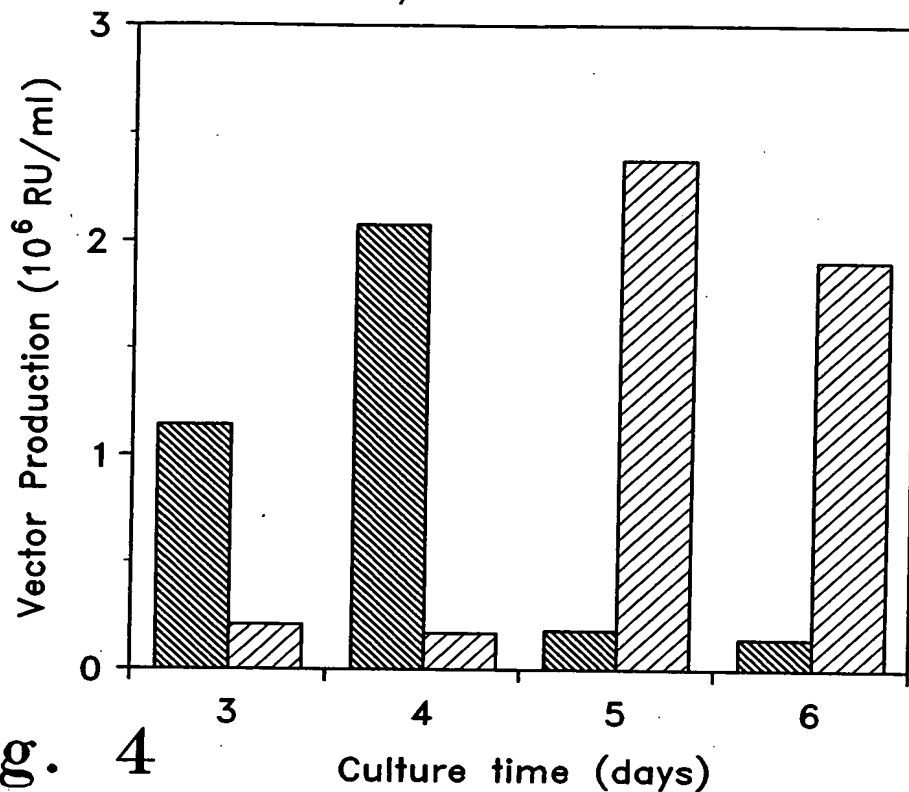


Figure 3



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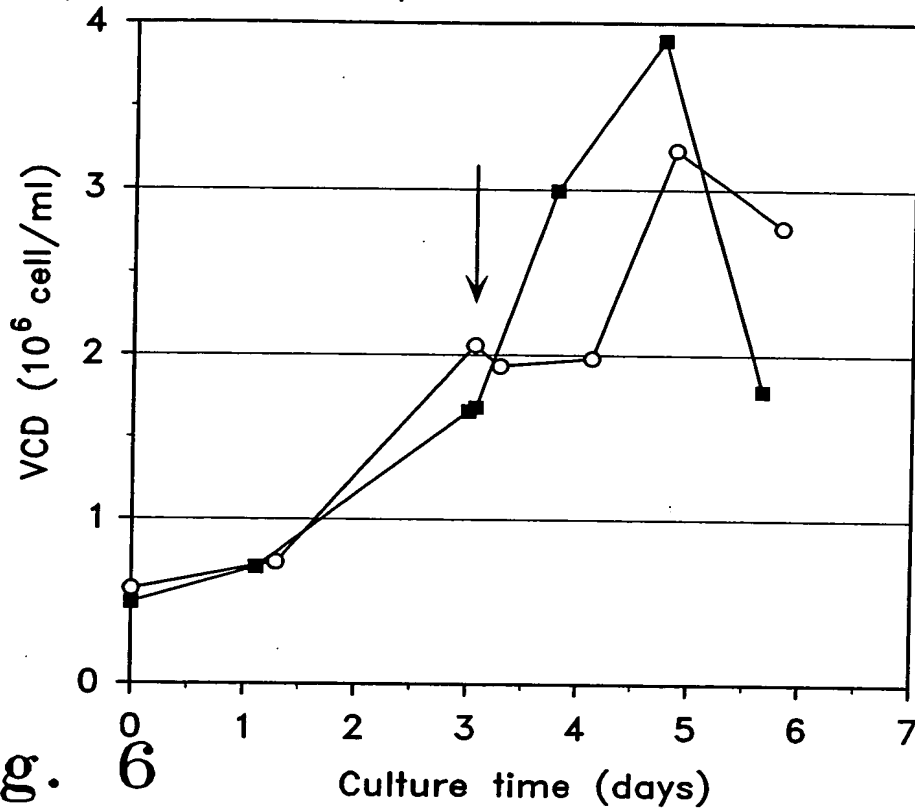


Fig. 6

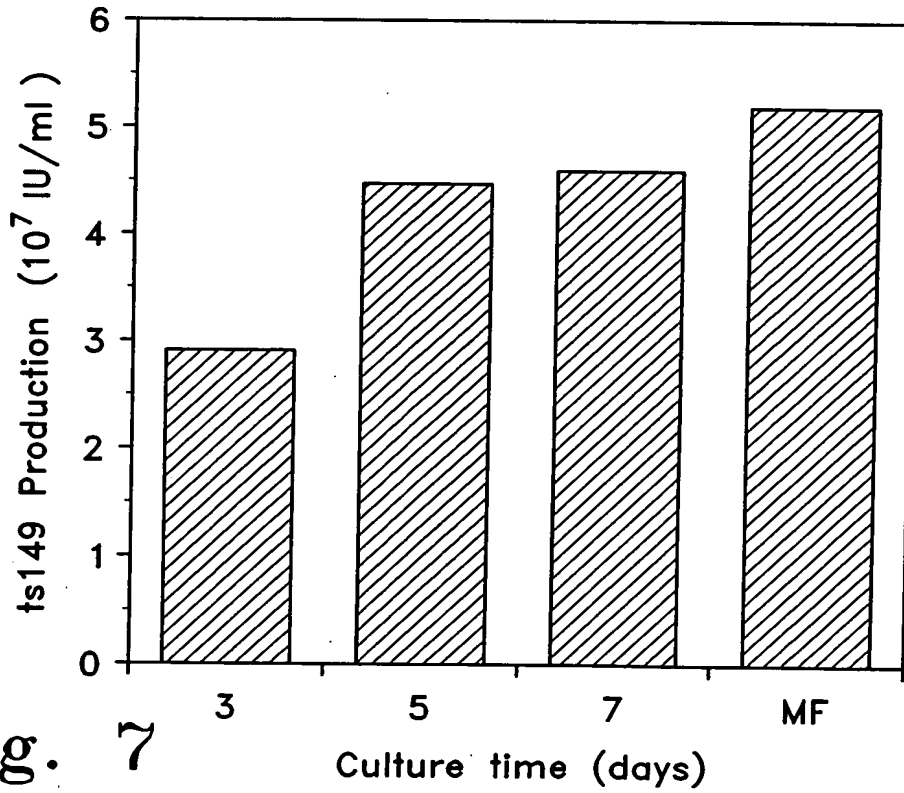
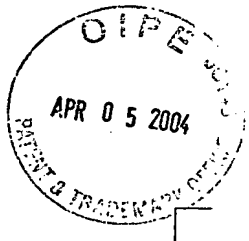


Fig. 7



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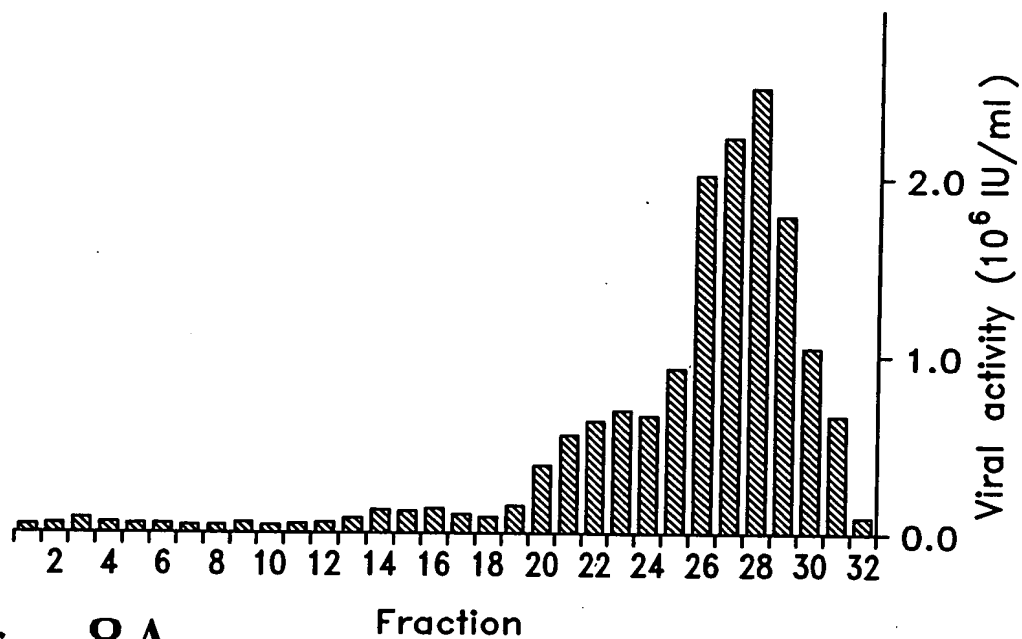


Fig. 8A

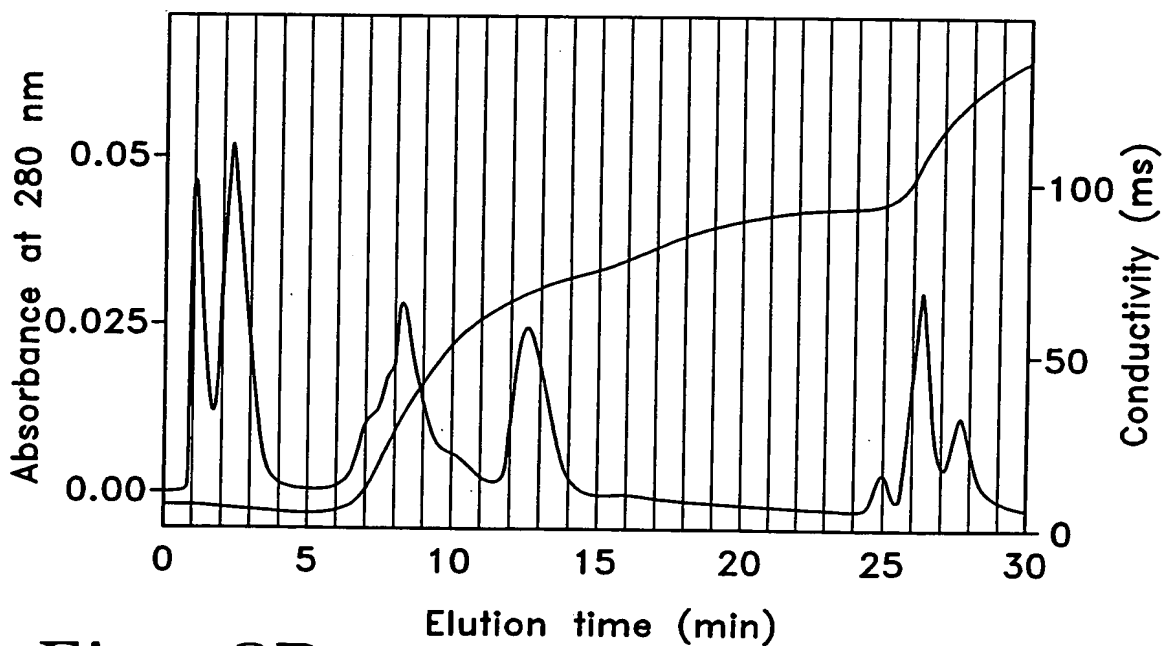


Fig. 8B

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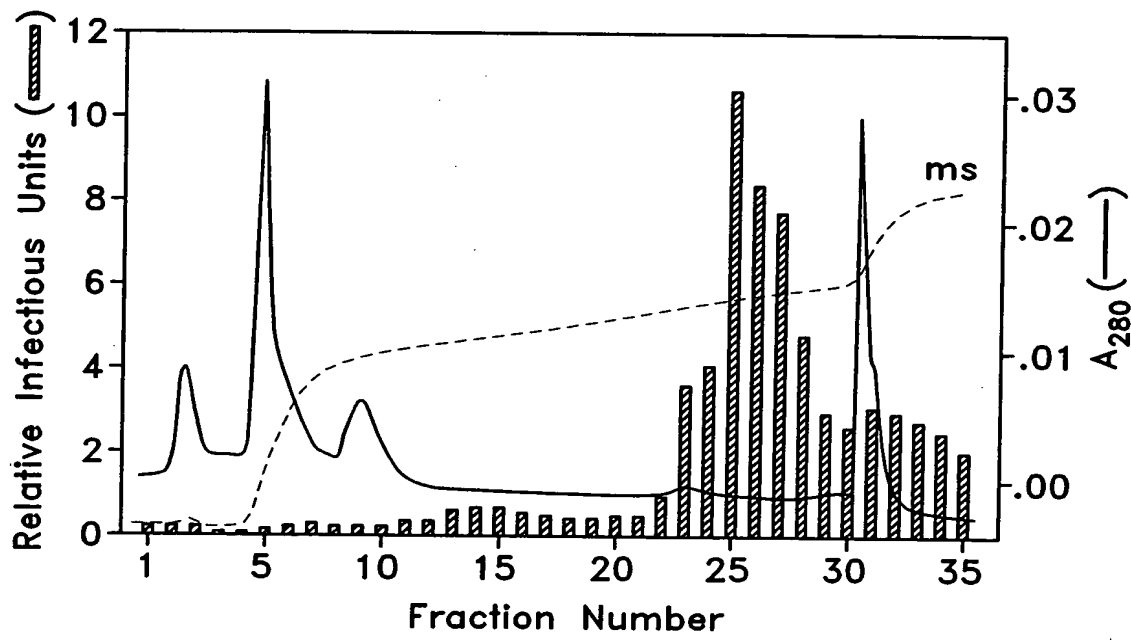
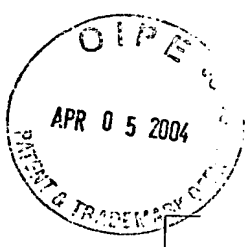


Fig. 9



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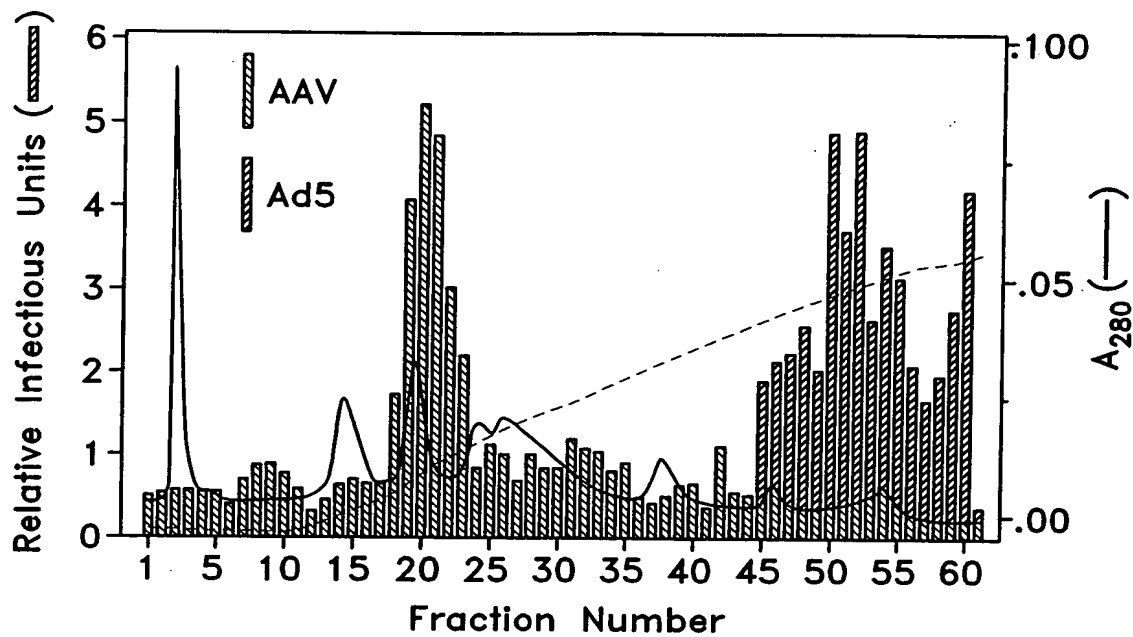


Fig. 10A

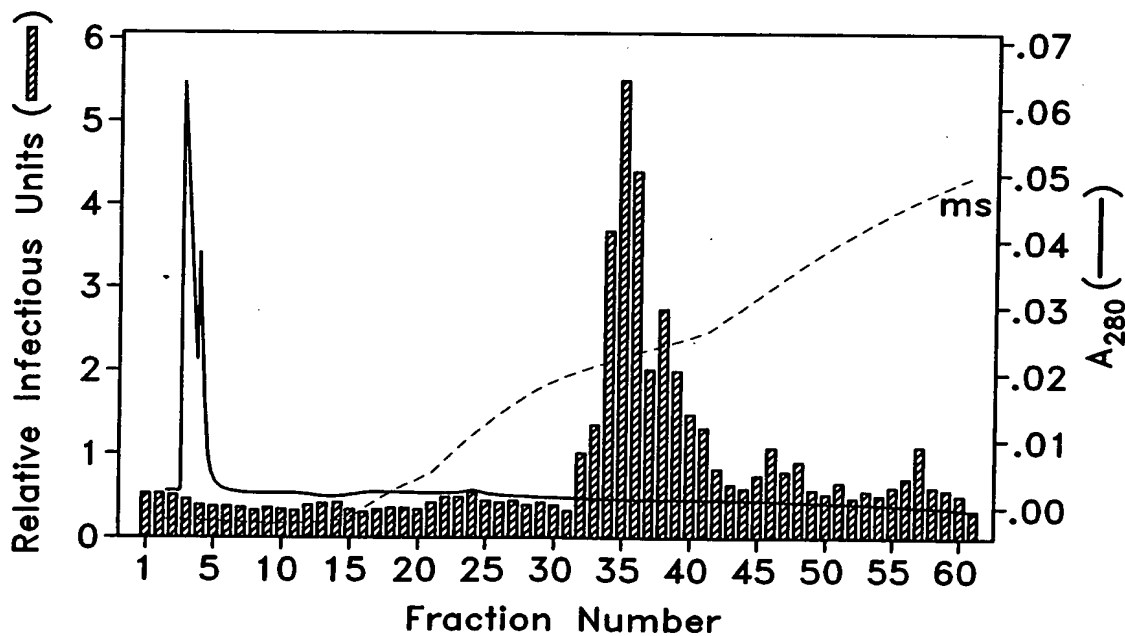
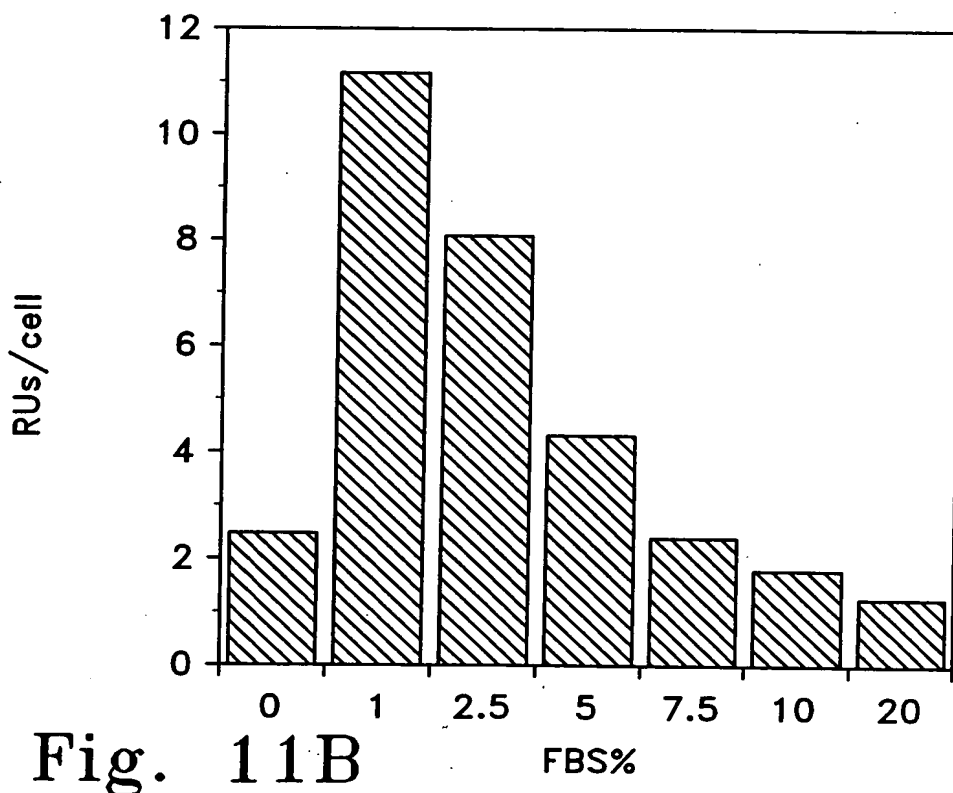
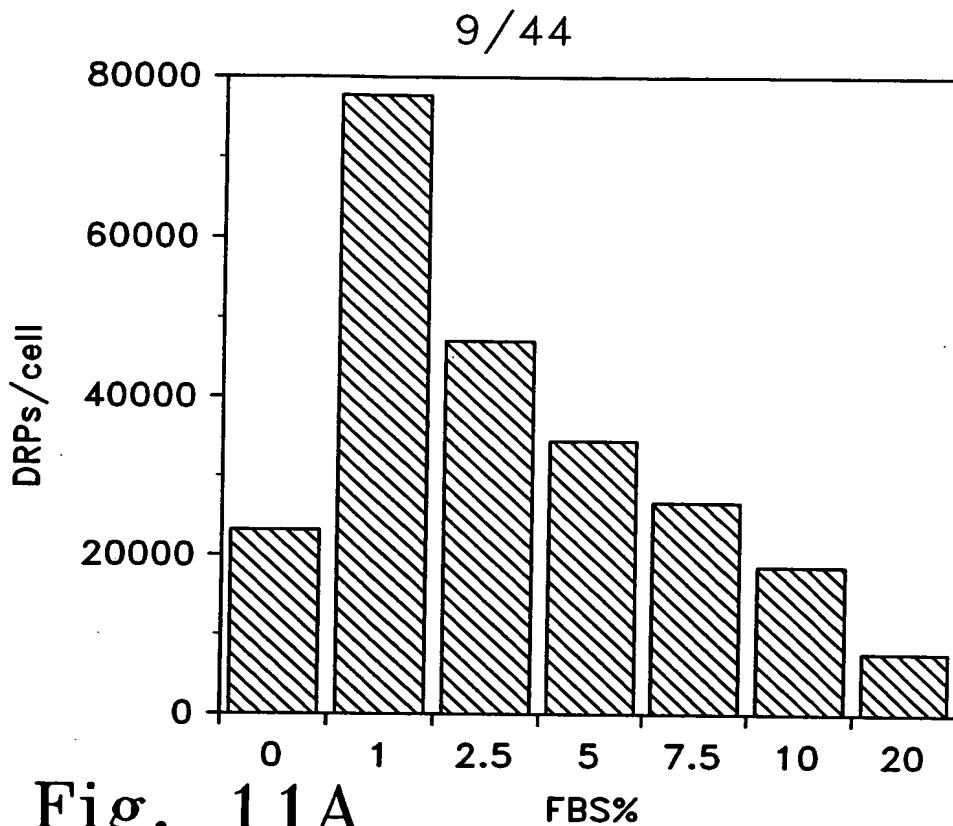


Fig. 10B





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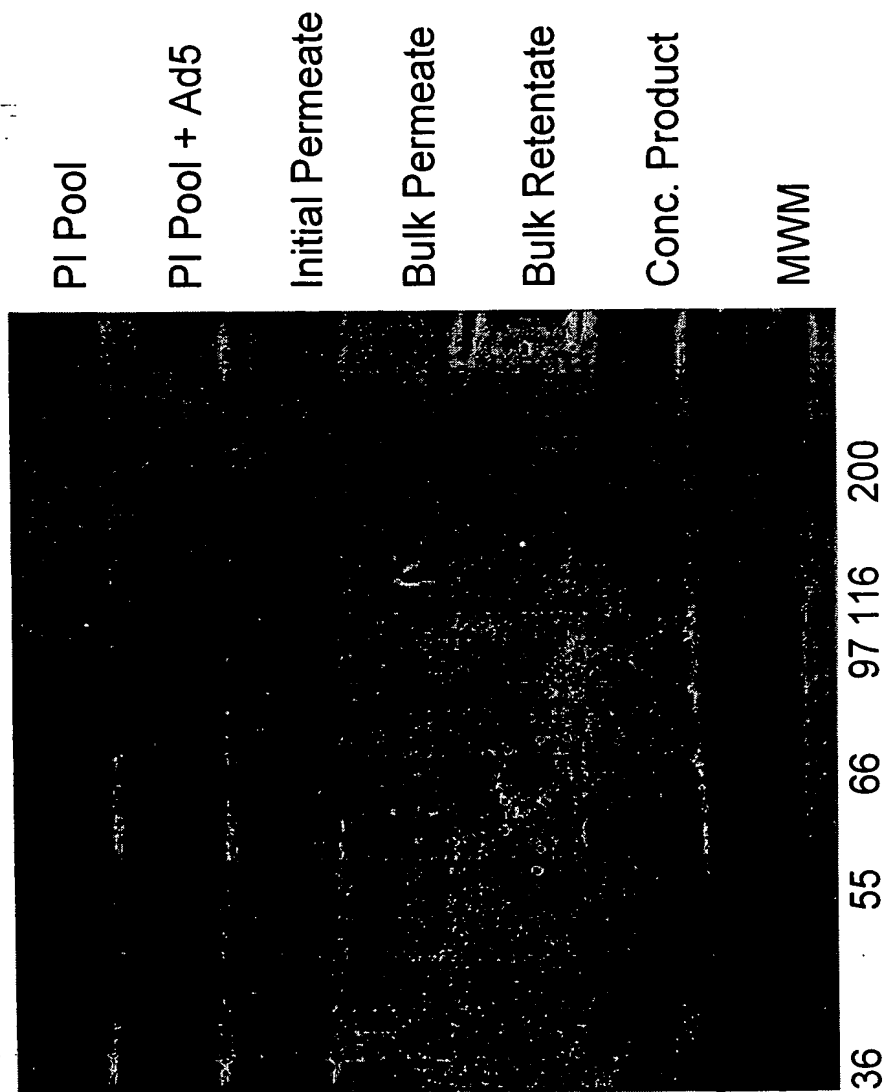


Fig. 12



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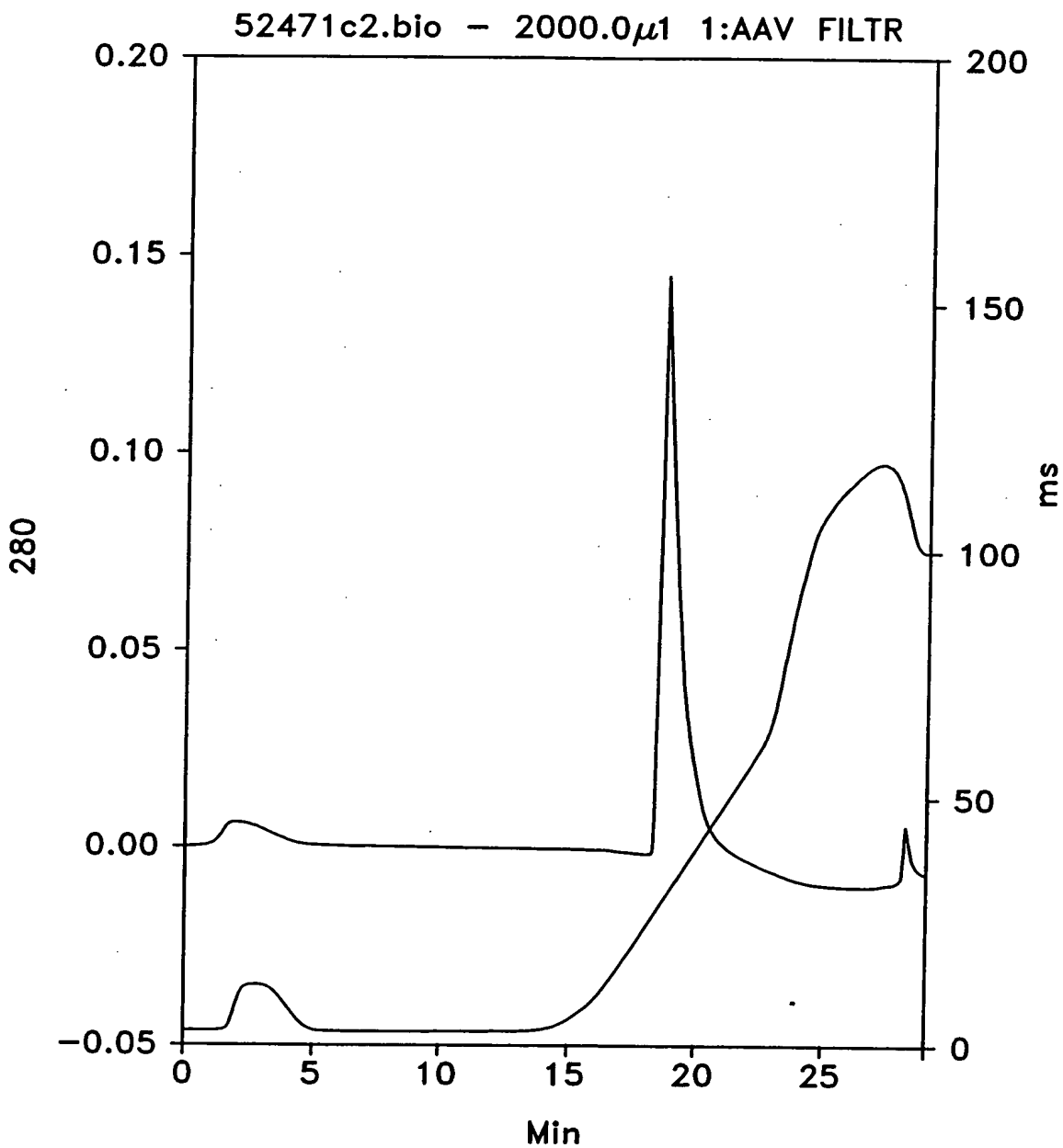


Fig. 13



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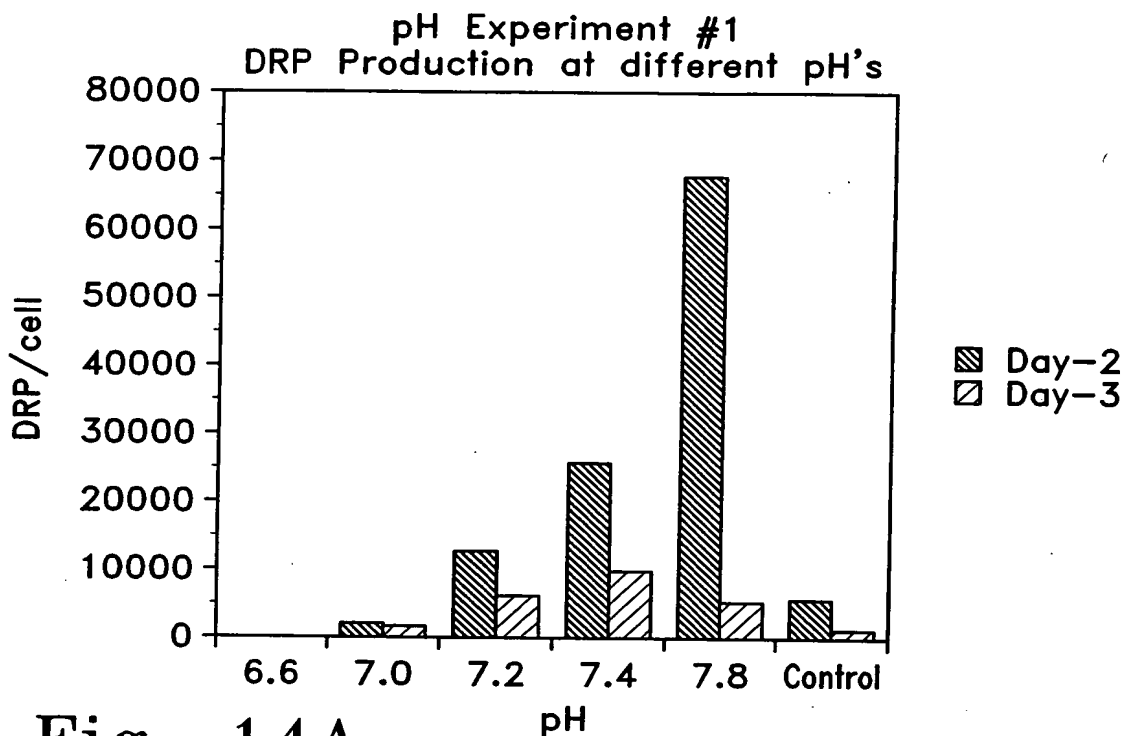


Fig. 14A

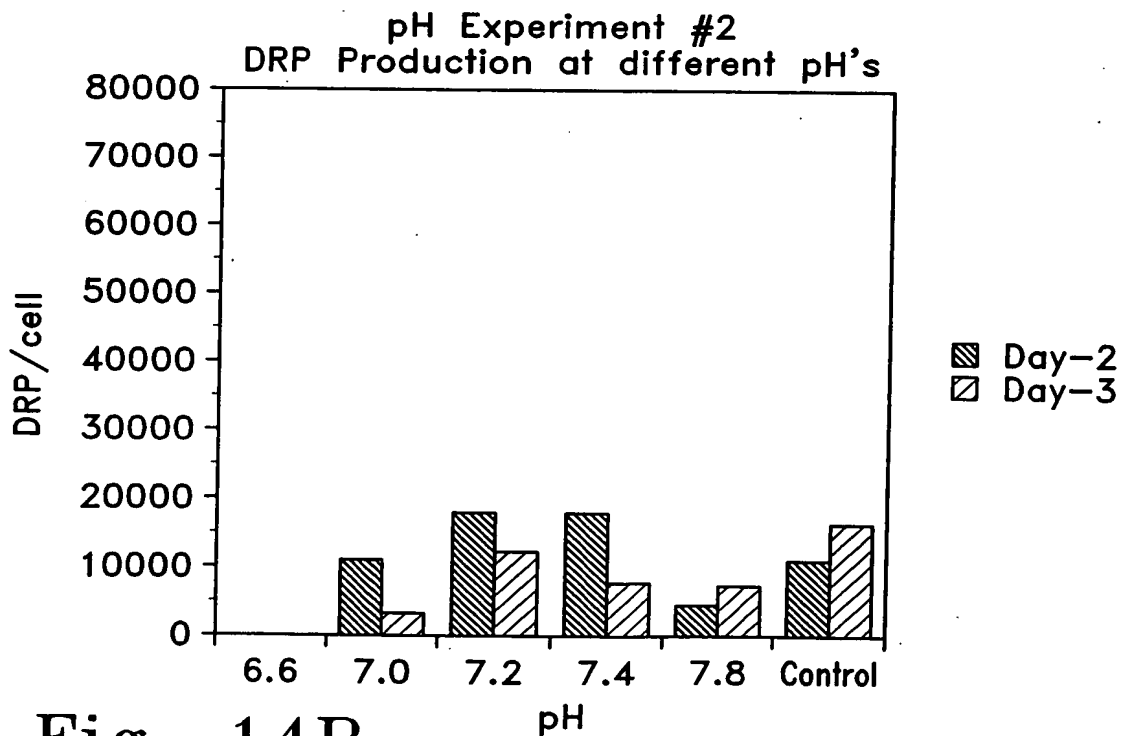
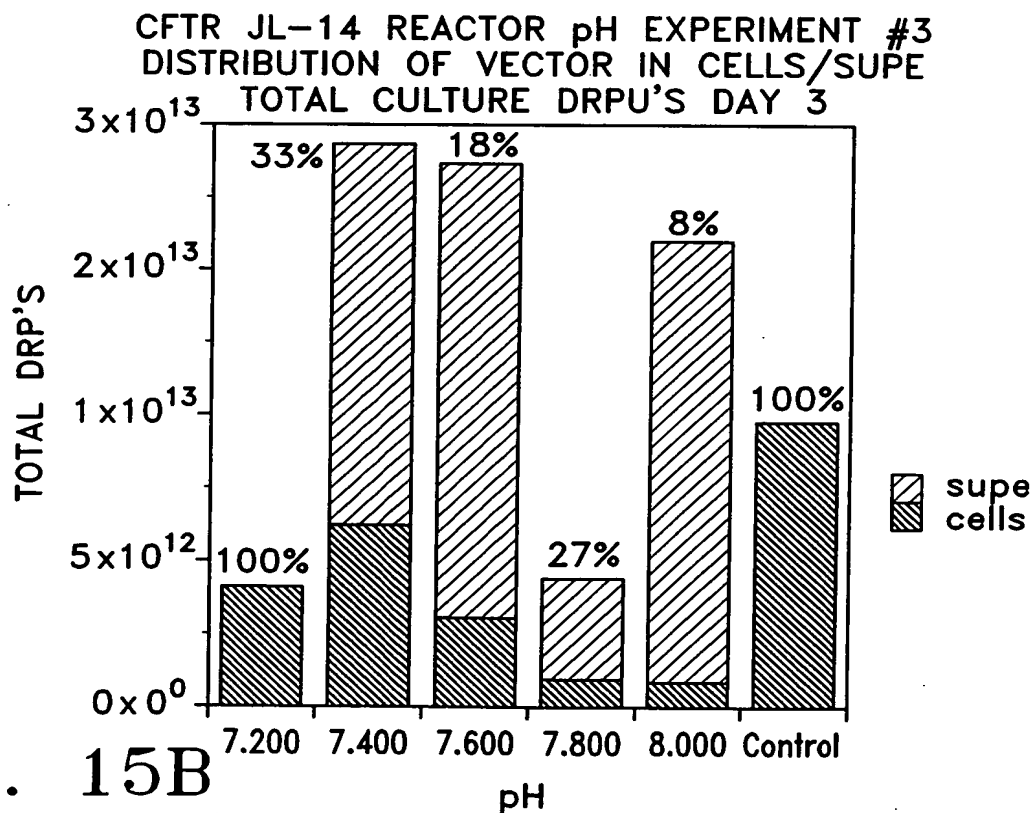
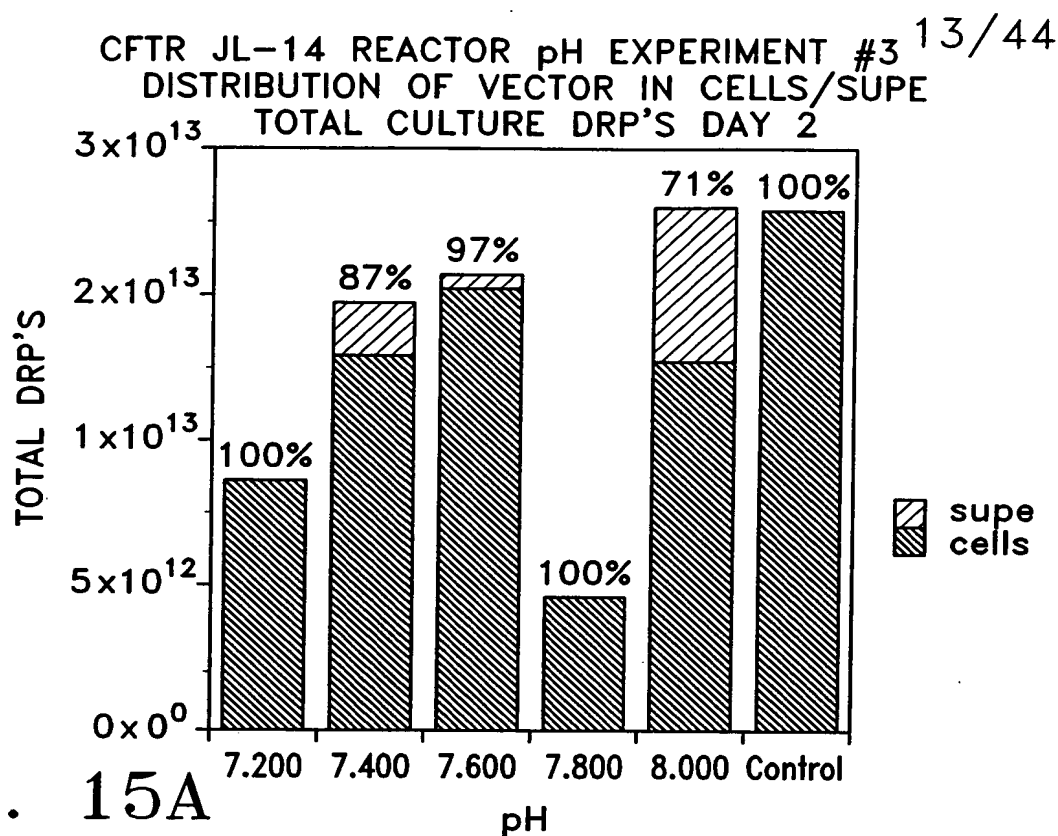
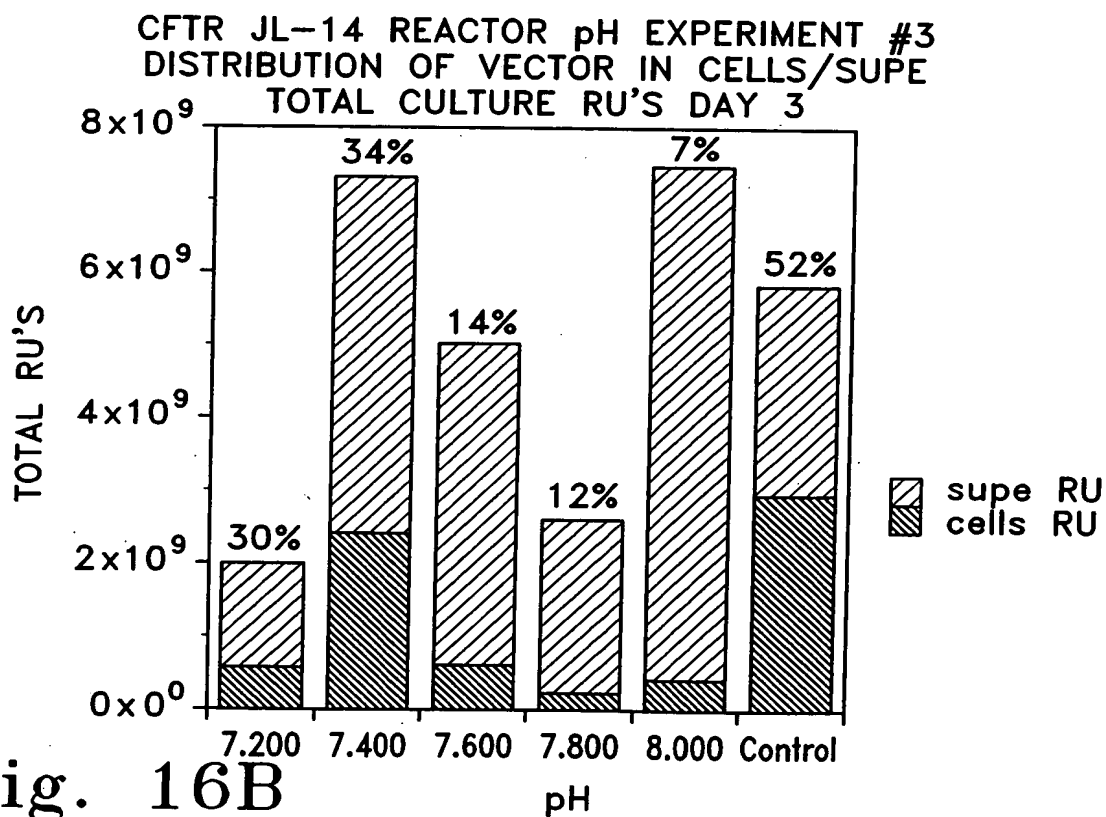
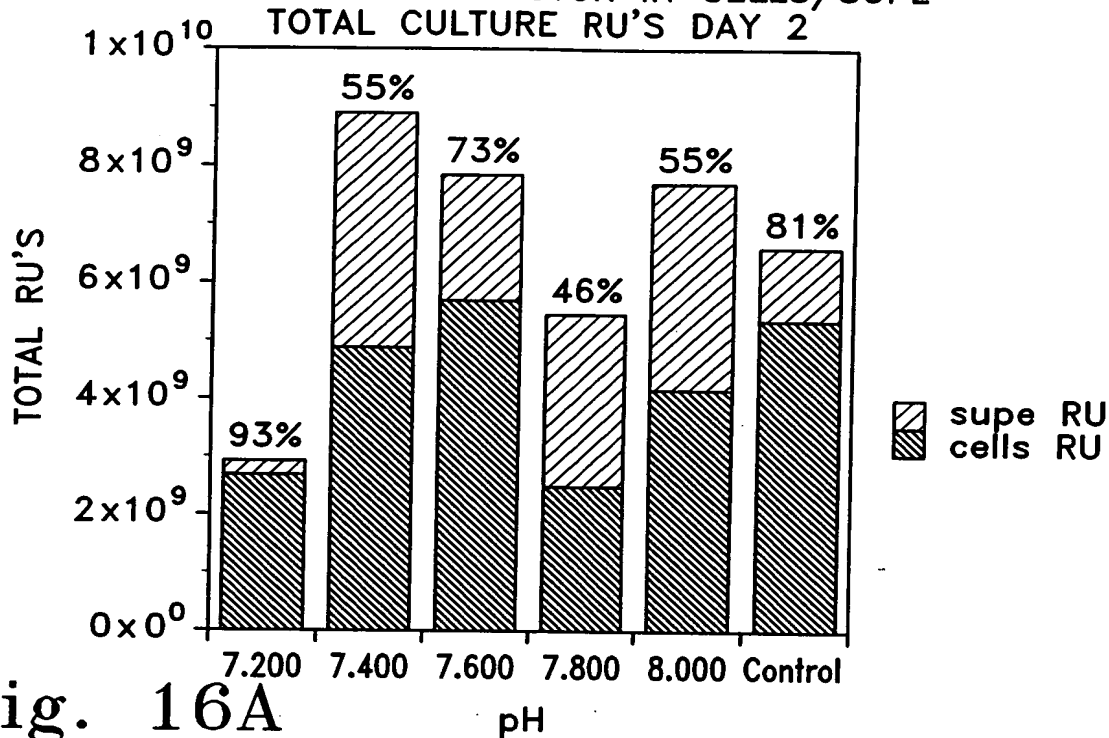


Fig. 14B





CFTR JL-14 REACTOR pH EXPERIMENT #3 14/44  
DISTRIBUTION OF VECTOR IN CELLS/SUPE





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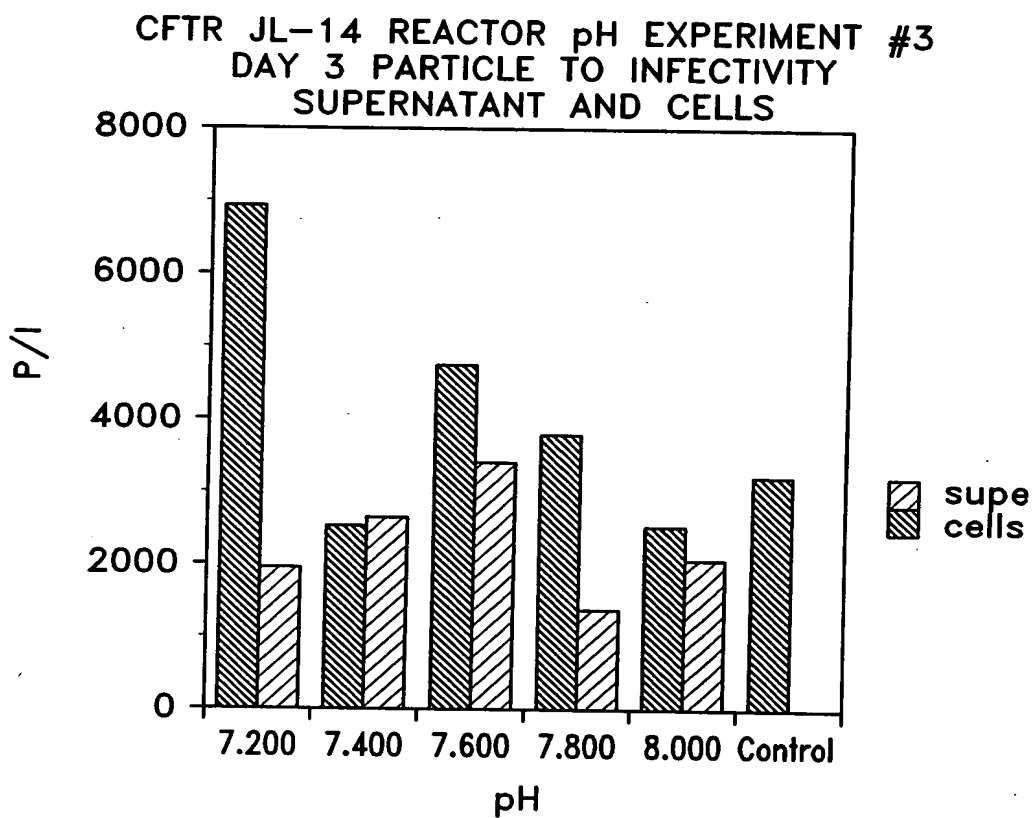


Fig. 17



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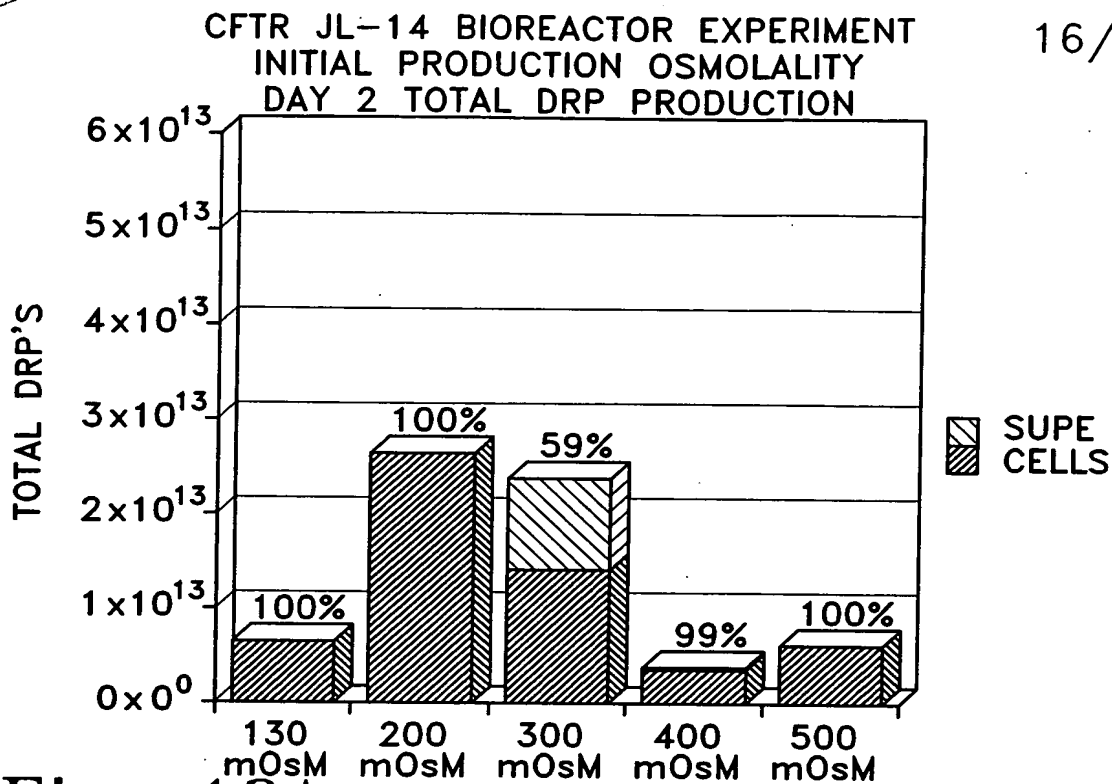


Fig. 18A

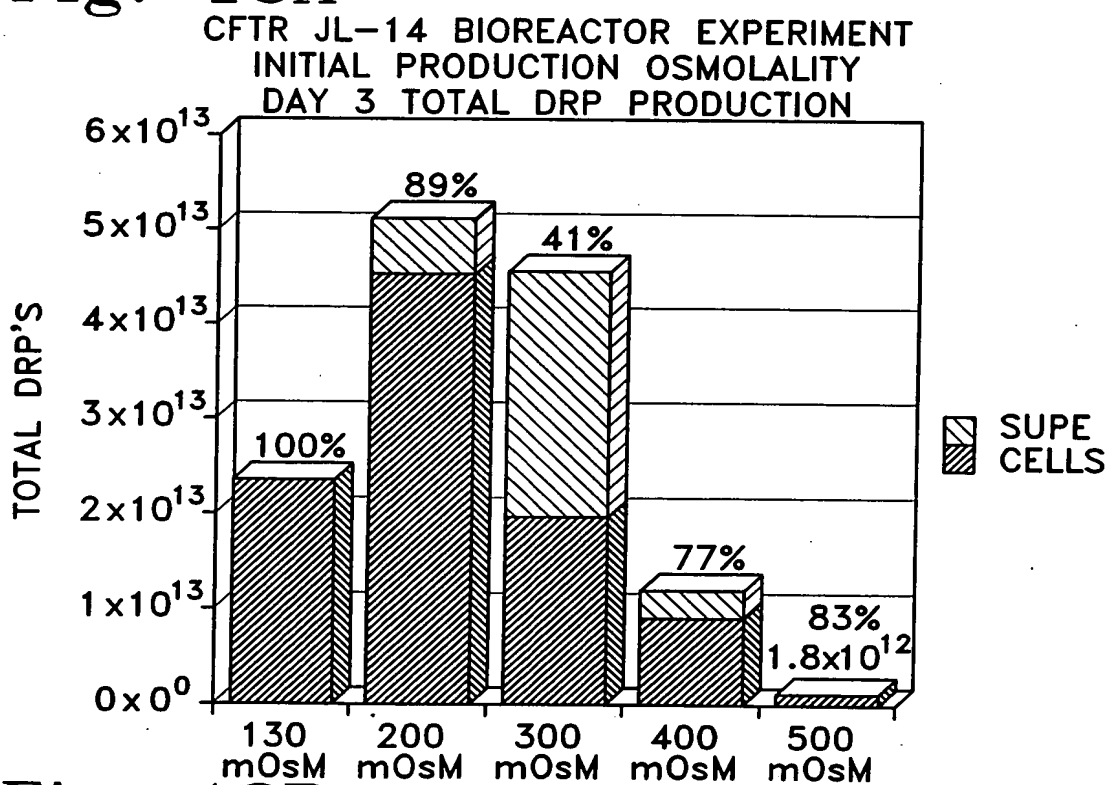


Fig. 18B



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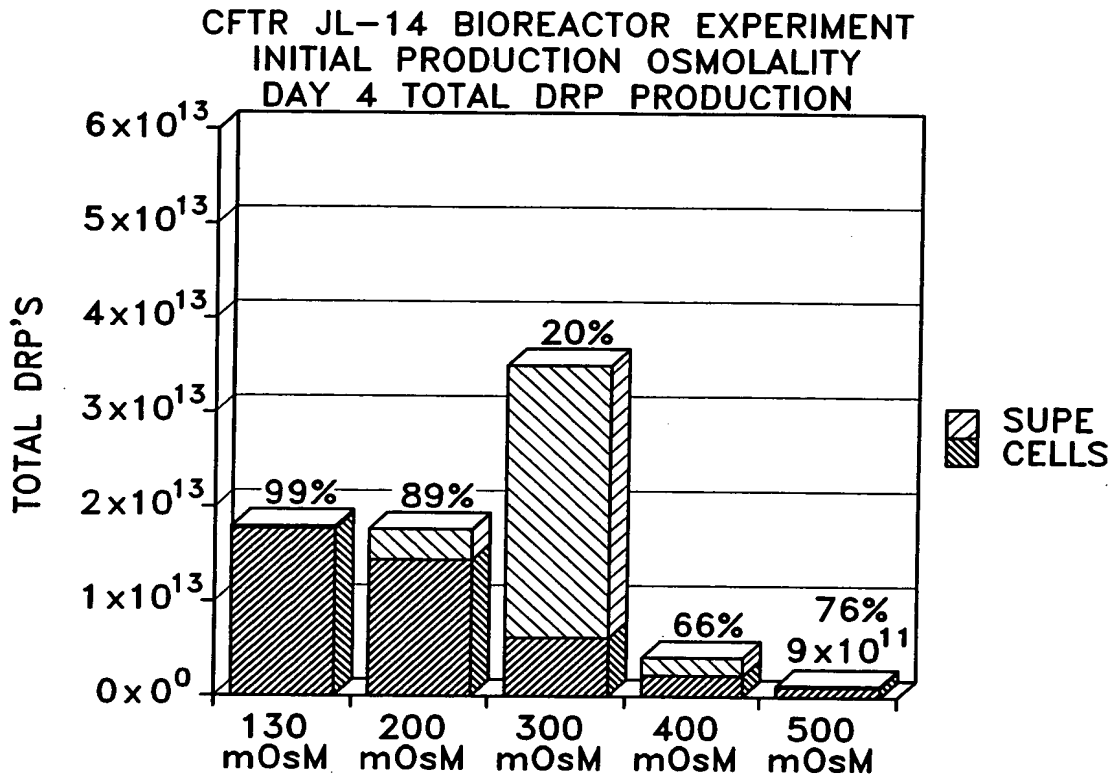
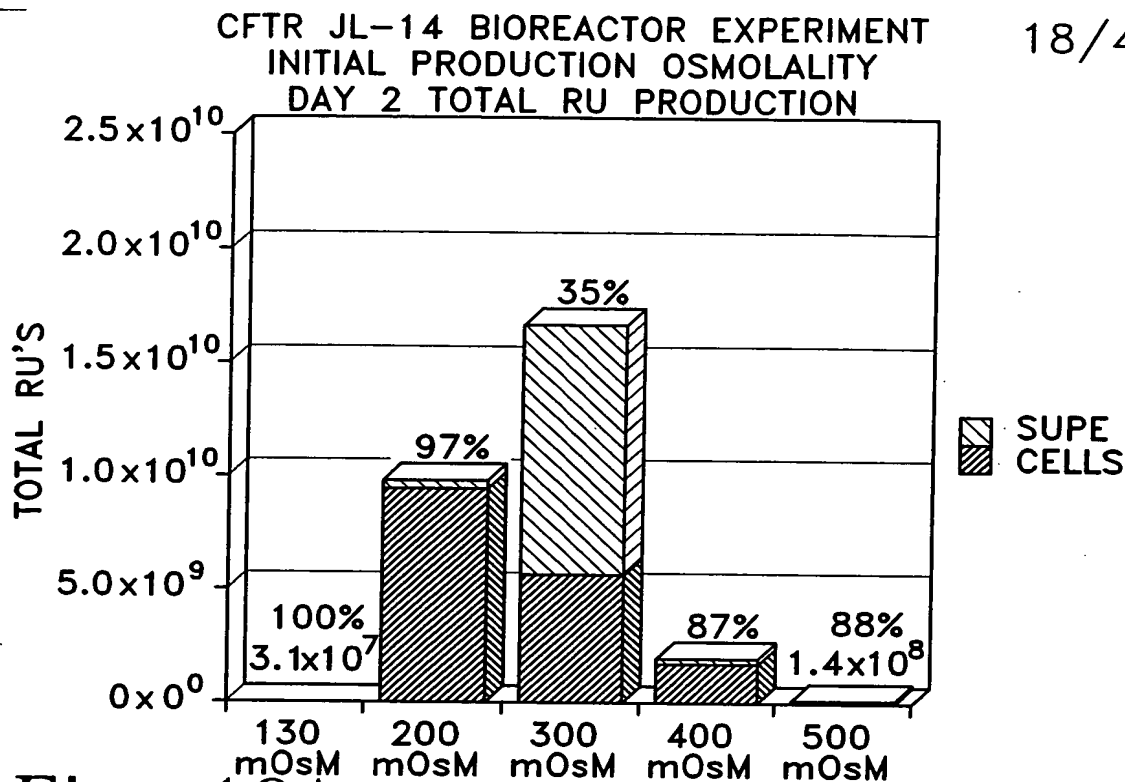


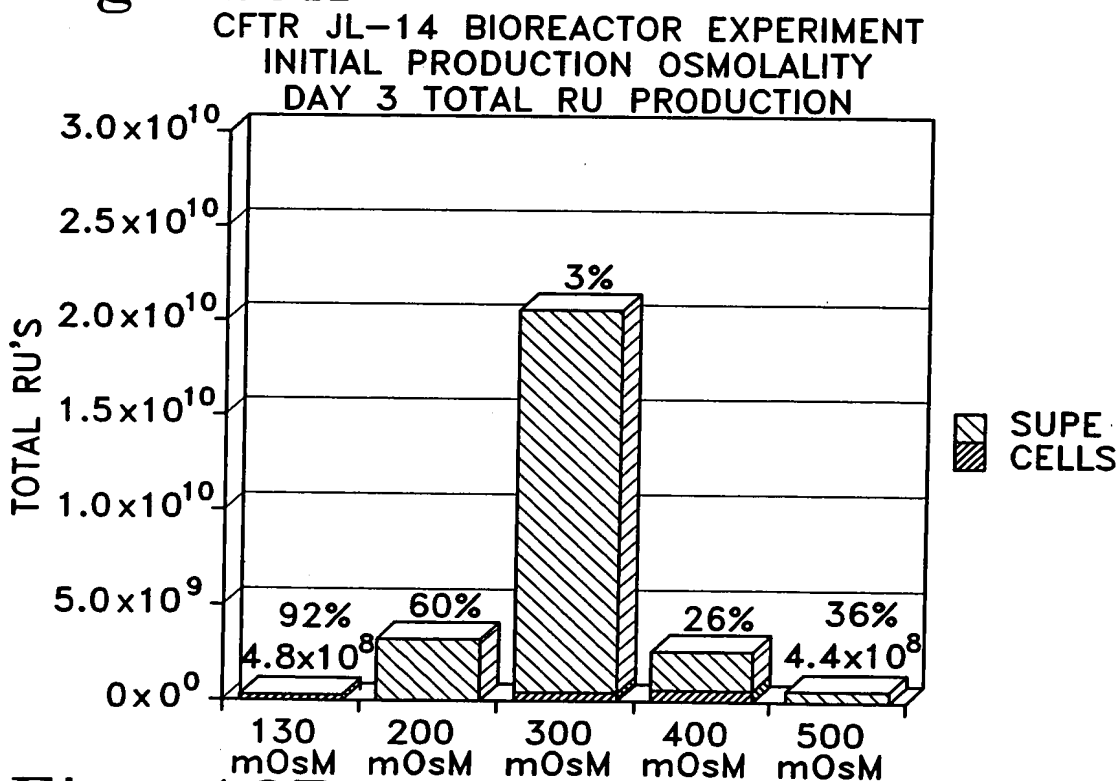
Fig. 18C

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**Fig. 19A**



**Fig. 19B**



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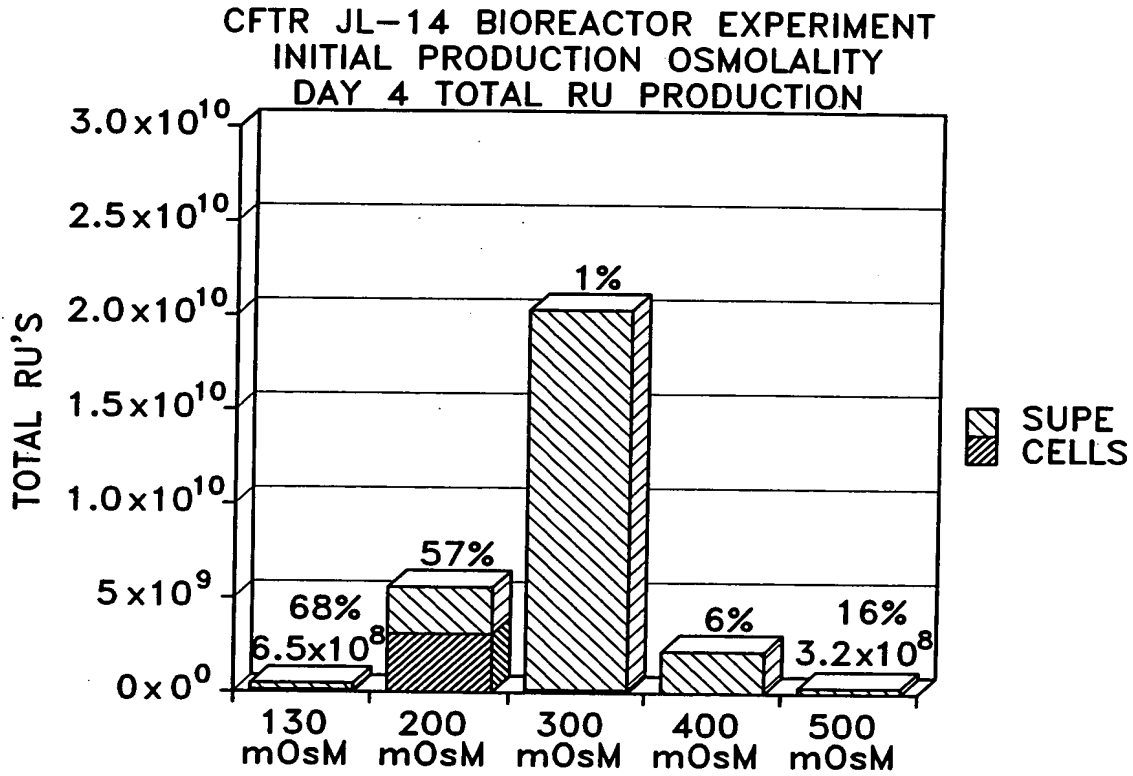
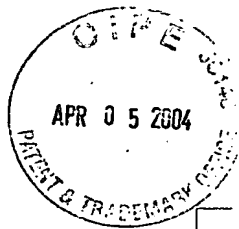


Fig. 19C



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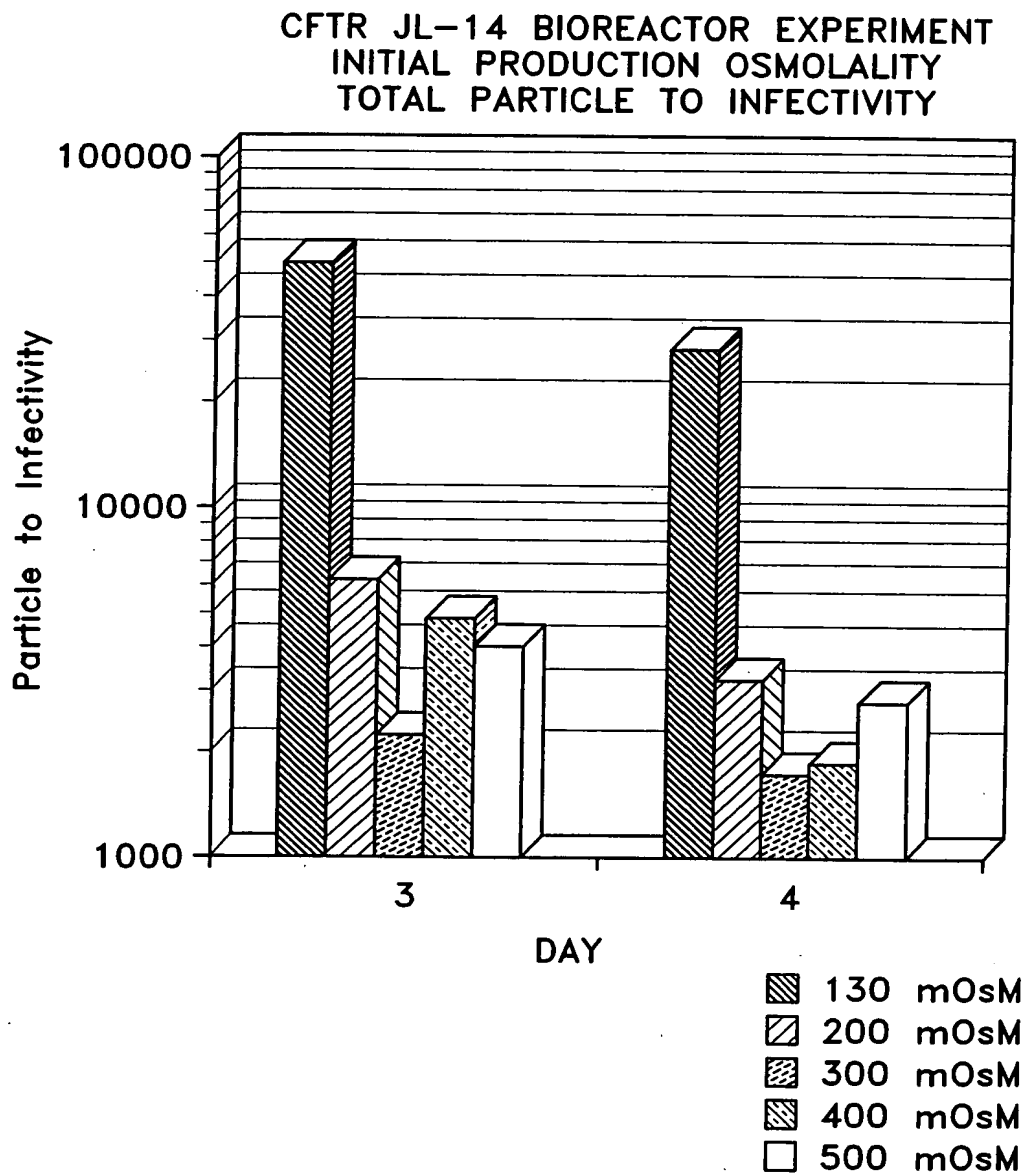


Fig. 20



CFTR JL-14 REACTOR EXP. TEMPERATURE  
DAY 2 TOTAL DNASE RESISTANT PARTICLES

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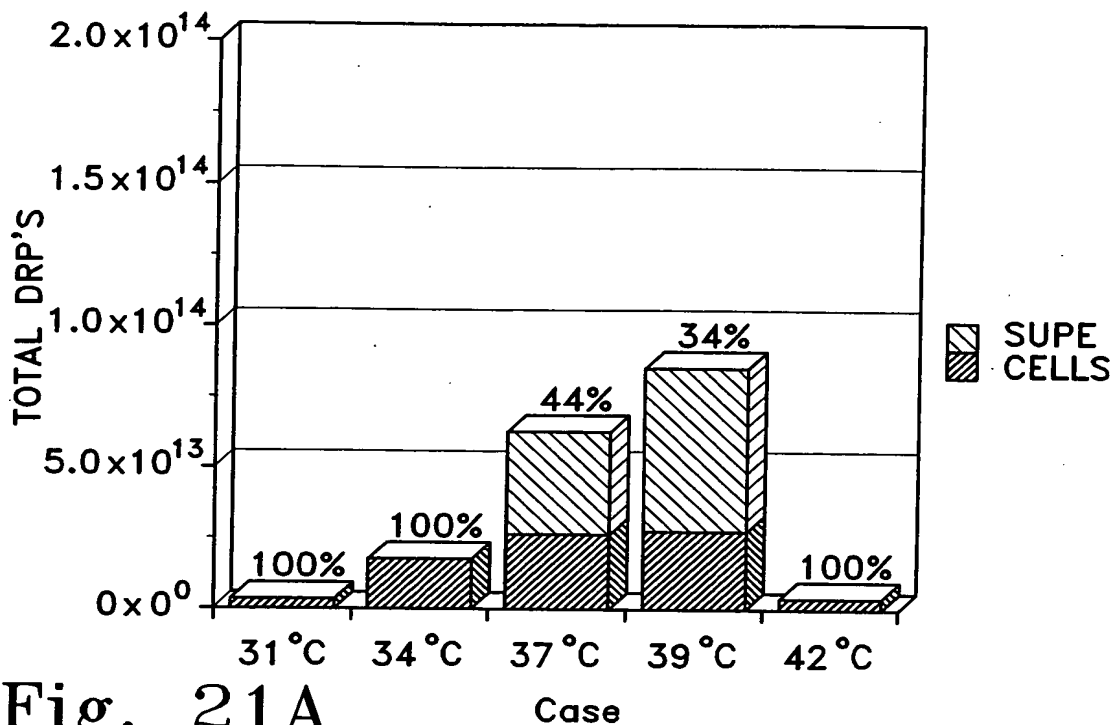


Fig. 21A

CFTR JL-14 REACTOR EXP. TEMPERATURE  
DAY 3 TOTAL DNASE RESISTANT PARTICLES

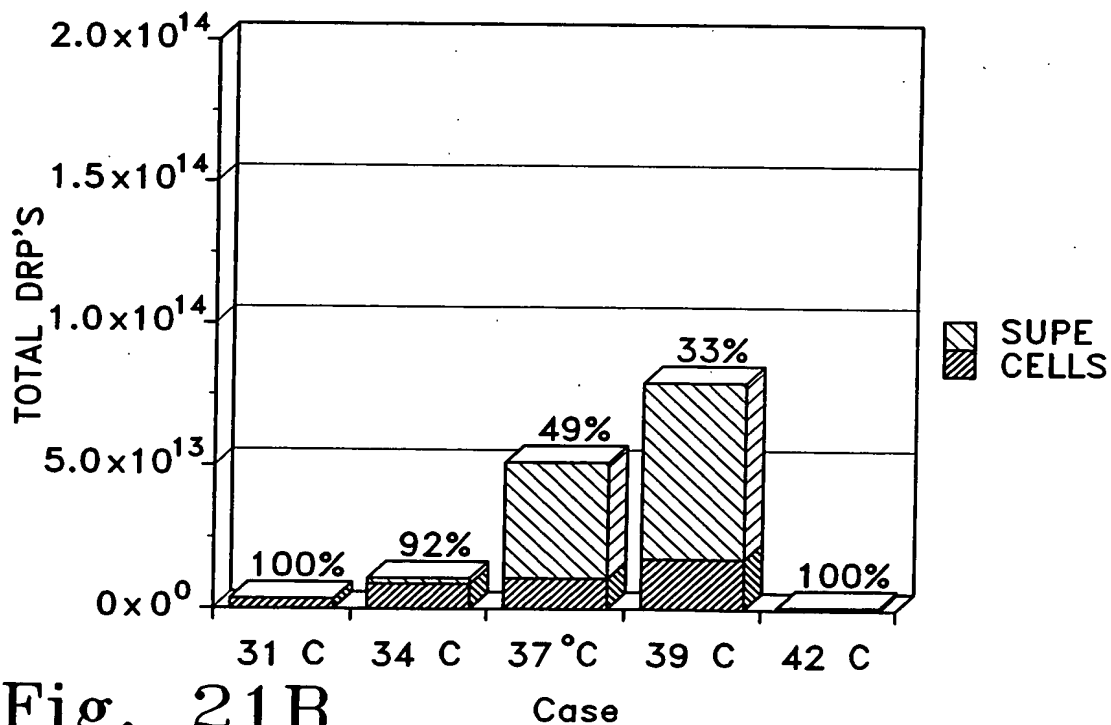


Fig. 21B



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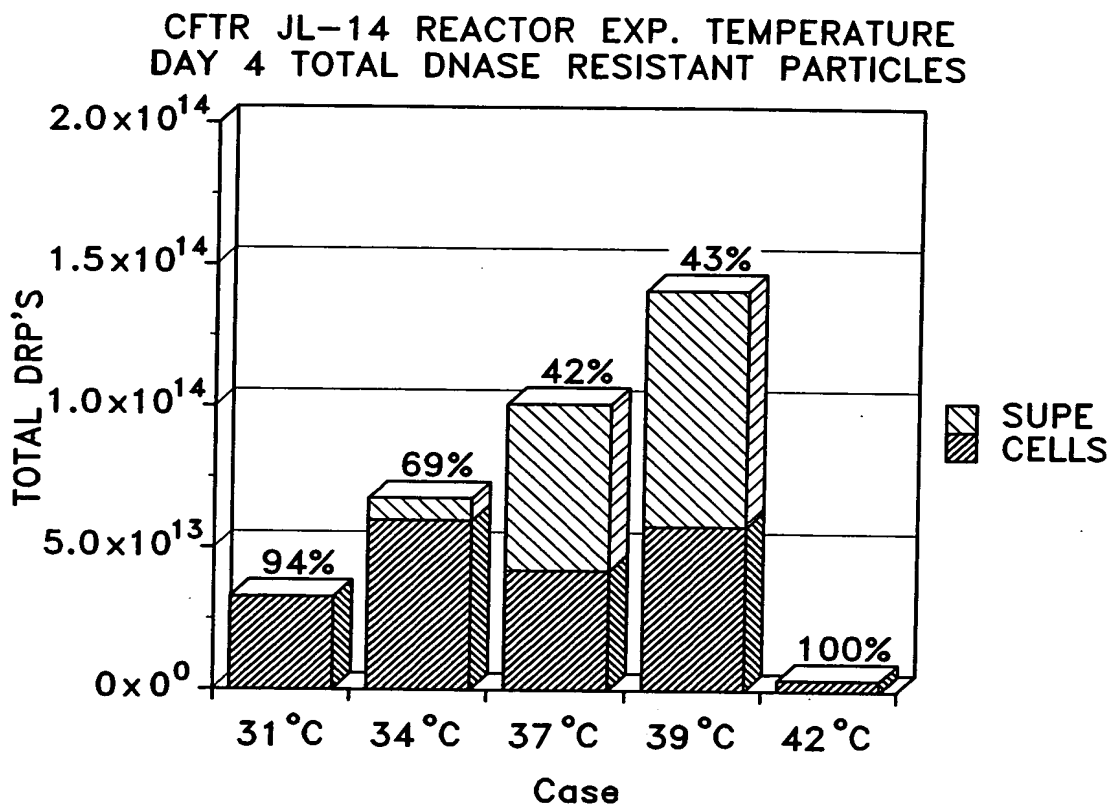
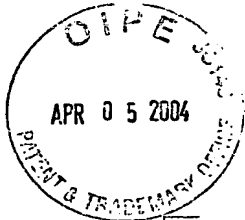


Fig. 21C



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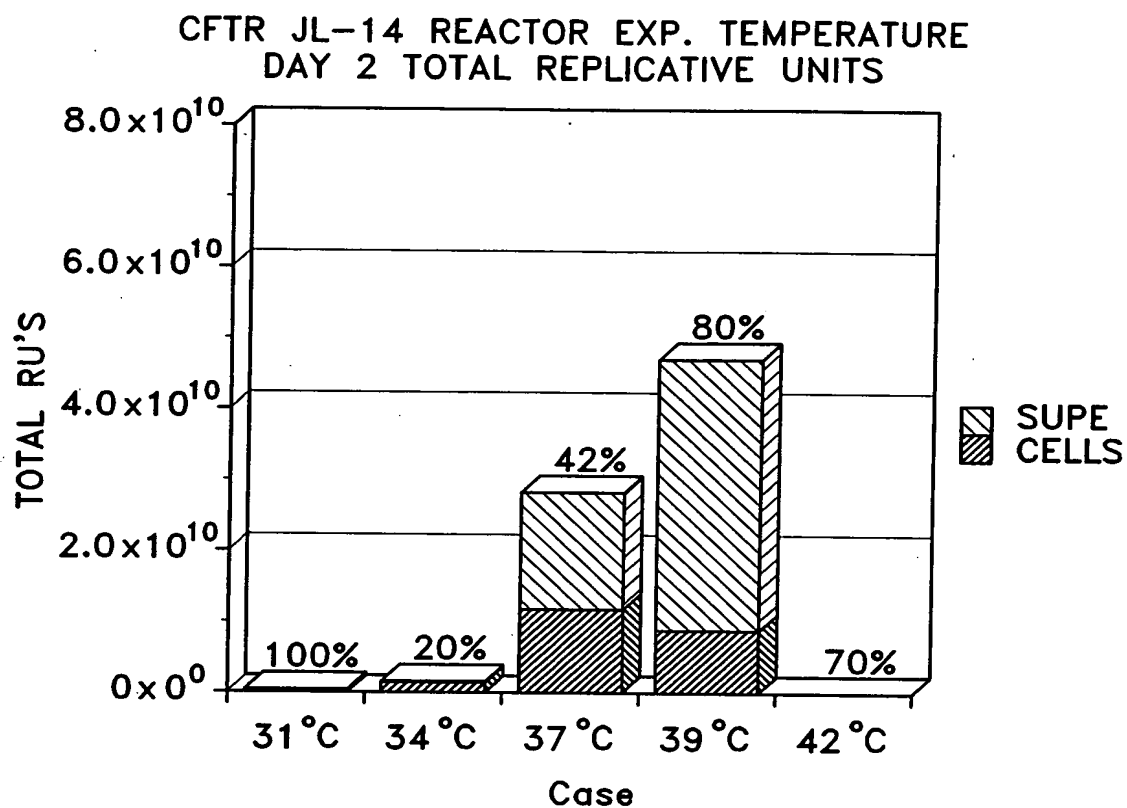


Fig. 22A



CFTR JL-14 REACTOR EXP. TEMPERATURE 24/44  
DAY 3 TOTAL REPLICATIVE UNITS

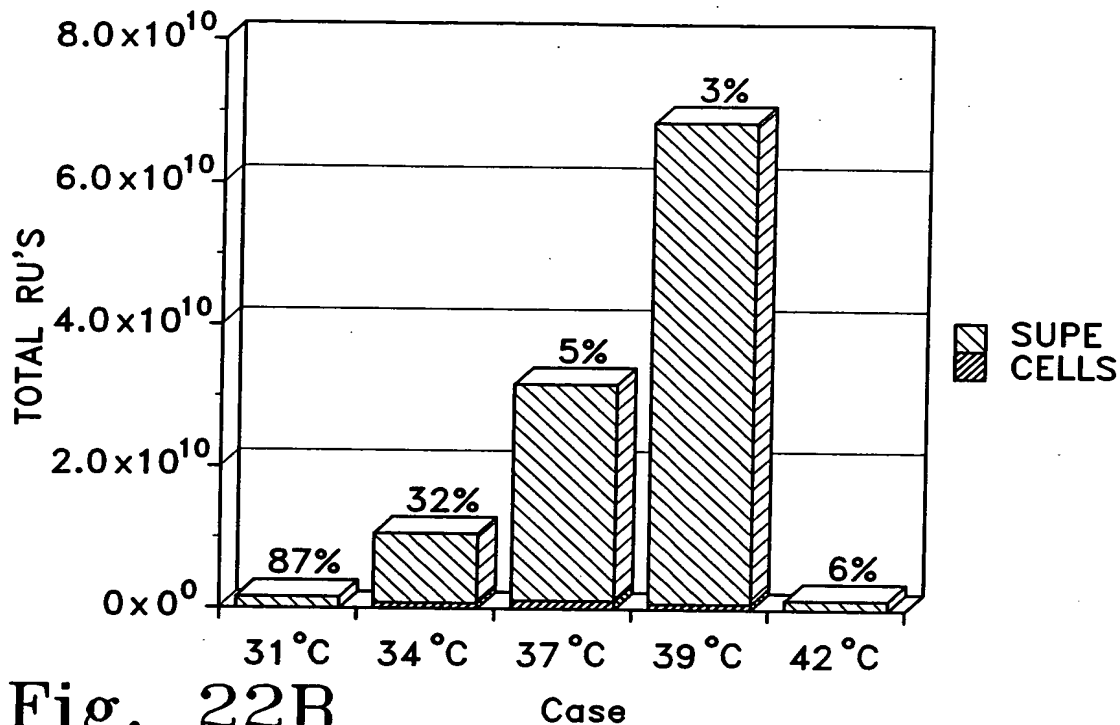


Fig. 22B

CFTR JL-14 REACTOR EXP. TEMPERATURE  
DAY 4 TOTAL REPLICATIVE UNITS

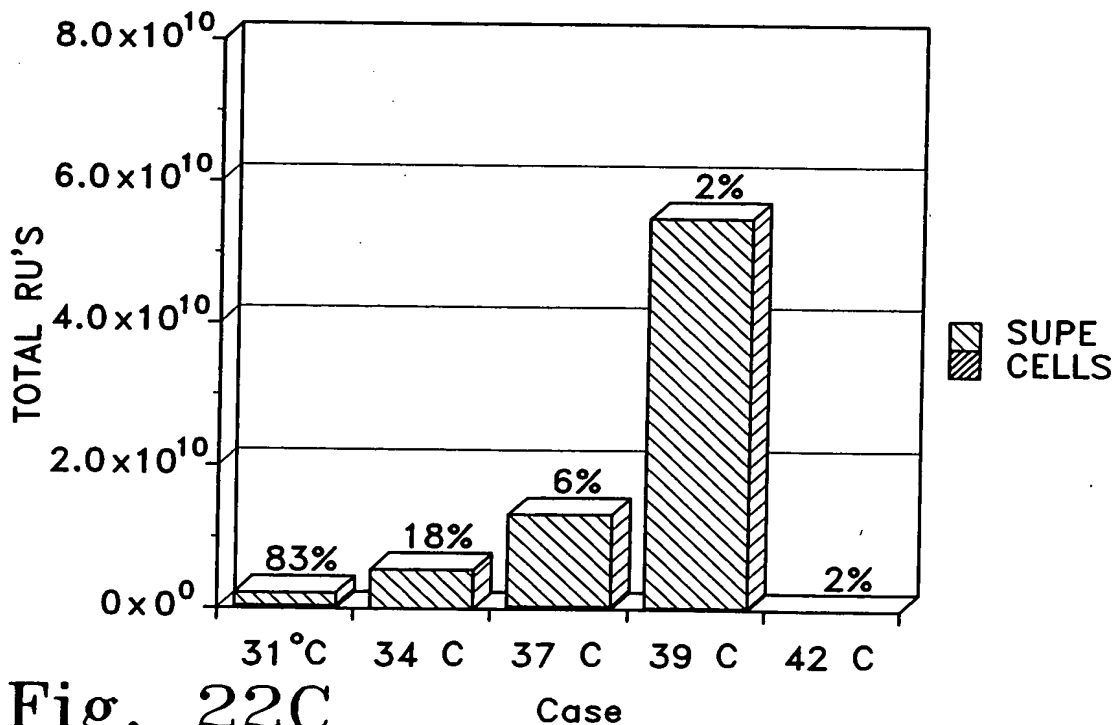


Fig. 22C



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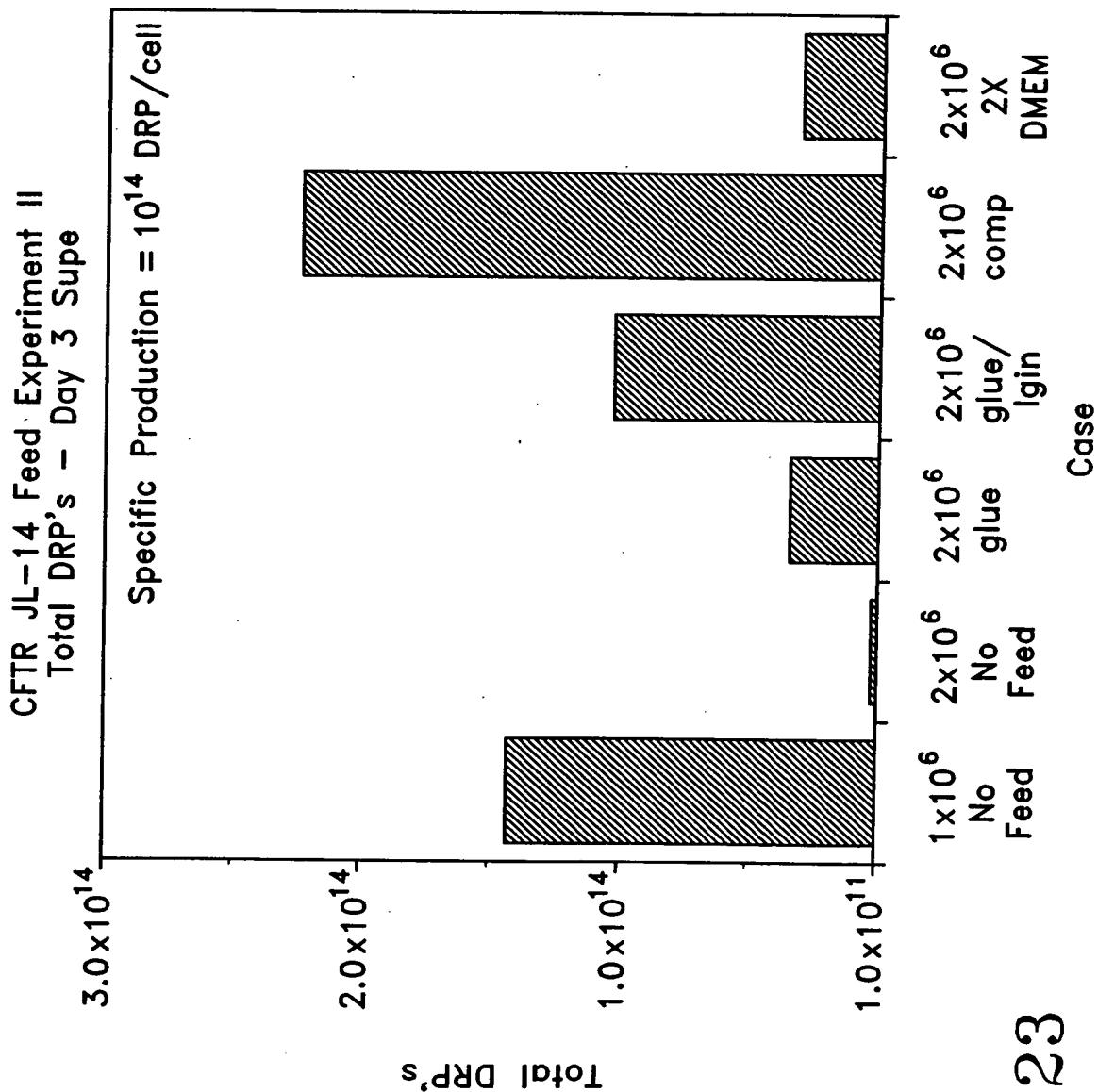


Fig. 23



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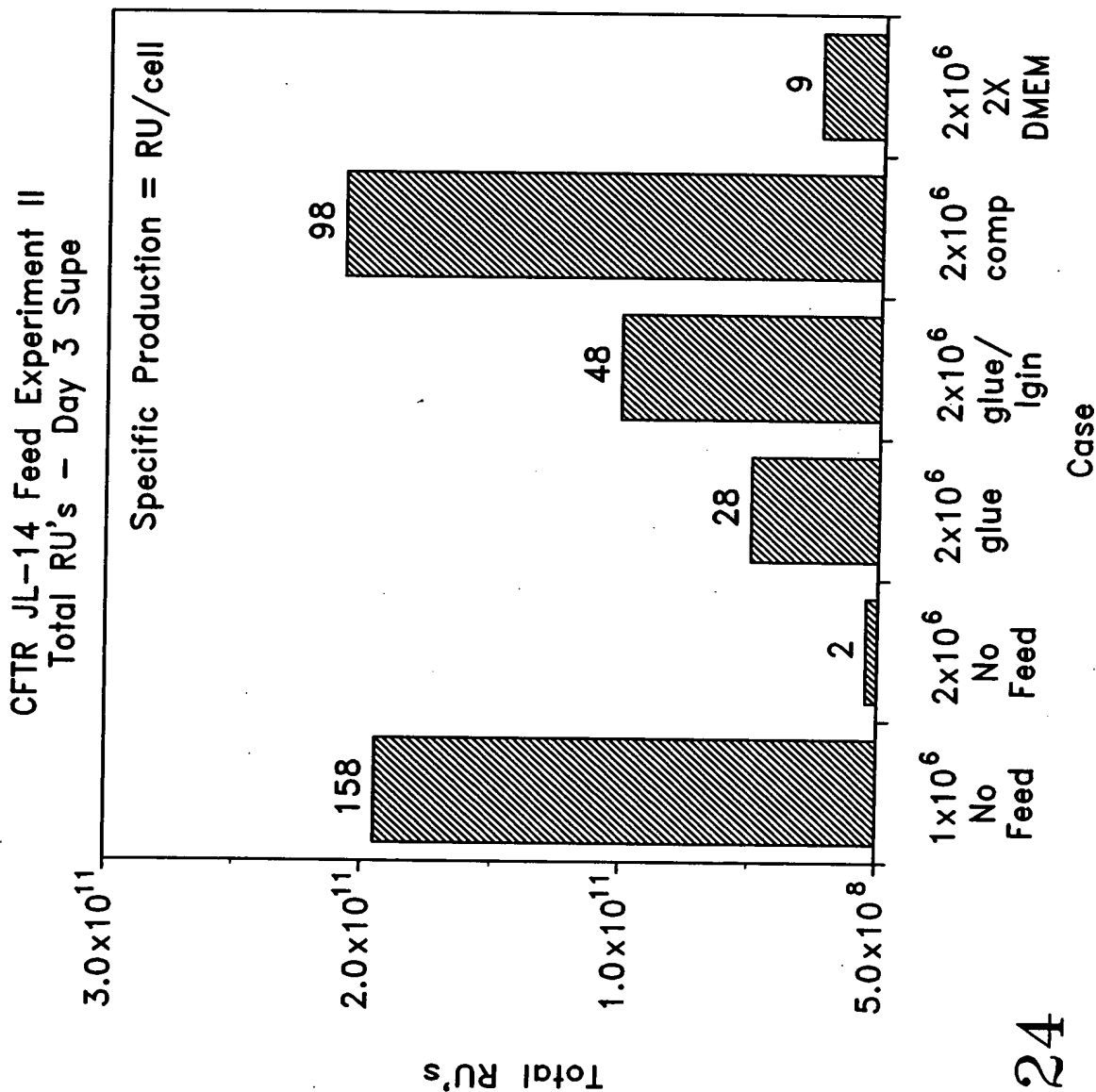


Fig. 24



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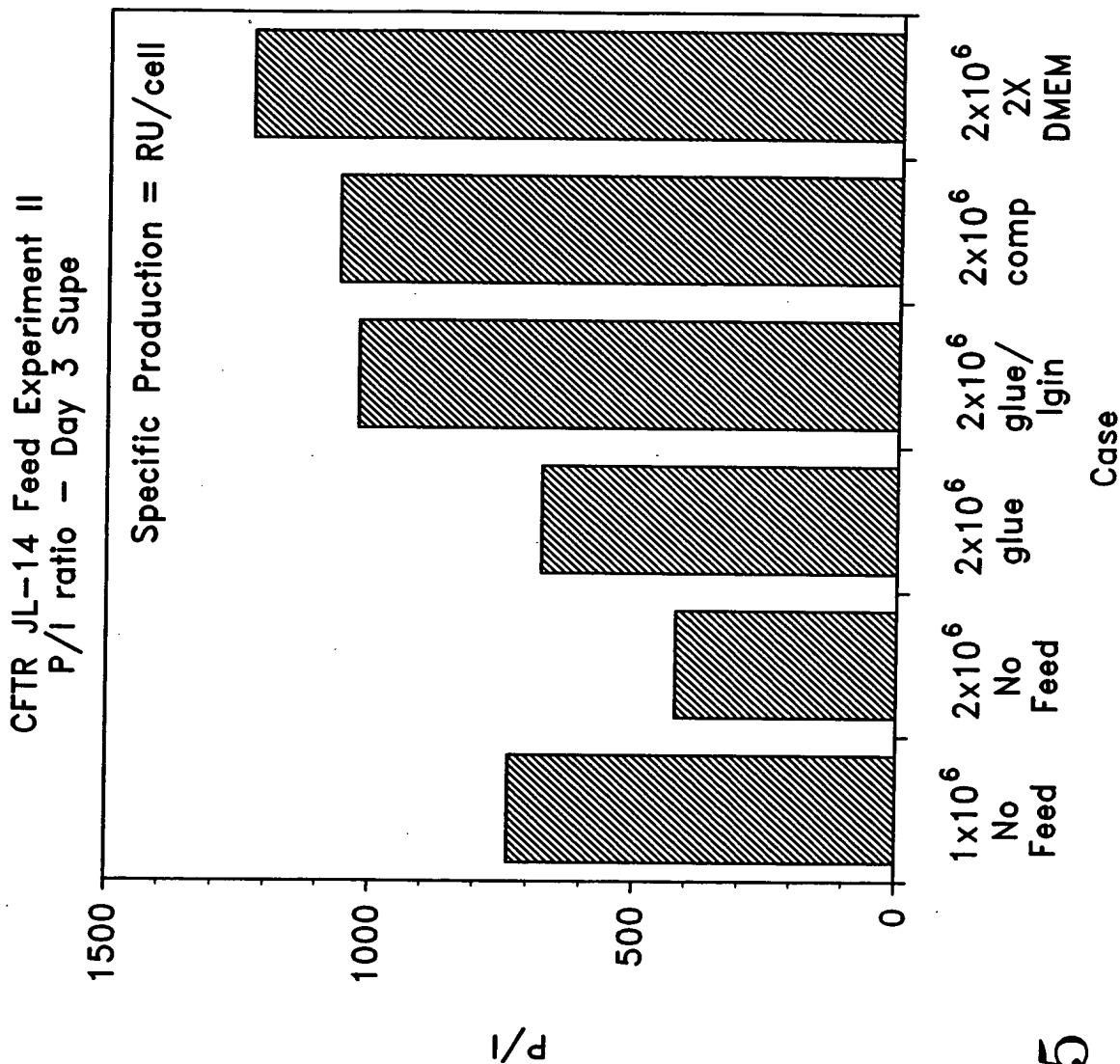
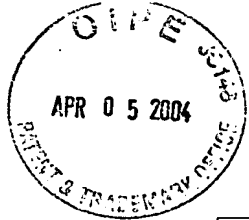
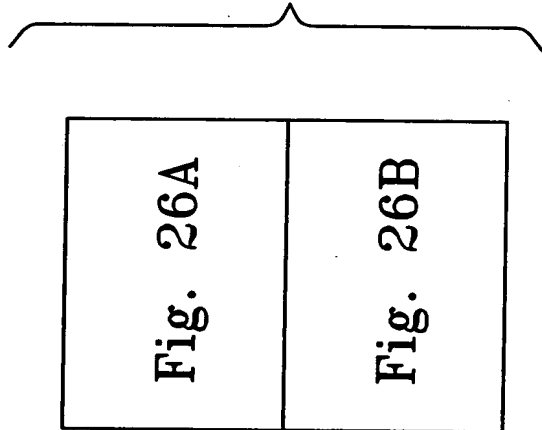


Fig. 25



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Fig. 26





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Fig. 26A

Lactalbumin Hydrolysate w/Earle's Salts (ELH)		MEM Amino Acids Solutions <sup>2</sup>	
Base Cat No.	11250 11800	Base Cat No.	11136 21135
Component	mg/L	Component	50X Liquid 50X Liquid
INORGANIC SALTS:		AMINO ACIDS:	
CaCl <sub>2</sub> (anhyd.)	200.00	L-Arginine	mg/L 6320.00
KCl	400.00	L-Cystine	1200.00
MgSO <sub>4</sub> (anhyd.)	97.67	L-Glutamine	14600.00
NaCl	6800.00	L-Histidine-HCL-H <sub>2</sub> O	2100.00
NaHCO <sub>3</sub>	2200.00	L-Isoleucine	2625.00
NaH <sub>2</sub> PO <sub>4</sub> • H <sub>2</sub> O	140.00	L-Lucine	2620.00
OTHER COMPONENTS:		L-Lysins HCL	3625.00
D-Glucose	1000.00	L-Methionine	755.00
Lactalbumin Hydrolysate	6500.00	L-Phenylalanine	1650.00
Phenol Red	10.00	L-Threonine	2380.00
		L-Tryptophan	510.00
		L-Tyrosine	1800.00
		L-Valine	2340.00

References:

1. Eagle, H. (1955) Proc. Soc. Exp. Biol. Med. 89, 362.
2. Eagle, H. (1959) Science 130, 432

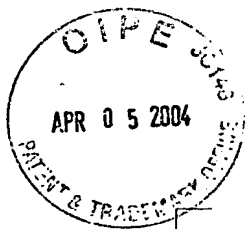


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MEM Non-Essential Amino Acids Solution <sup>2</sup>	
Base Cat No.	11140
Component	100X Liquid mg/L
AMINO ACIDS:	
L-Alanine	890.00
L-Asparagine	1500.00
L-Aspartic	1330.00
L-Glutamine	1470.00
Glycine	750.00
L-Proline	1150.00
L-Serine	1050.00

MEM Vitamon Solutions <sup>2</sup>	
Base Cat No.	11120
Component	50X Liquid mg/L
NaCl	8500.00
D-Ca Pantothenate	100.00
Choline Chloride	100.00
Folic Acid	100.00
L-Inositol	200.00
Nicotinamide	100.00
Pyridoxal-HCL	100.00
Riboflavin	10.00
Thiamine HCL	100.00

Fig. 26B



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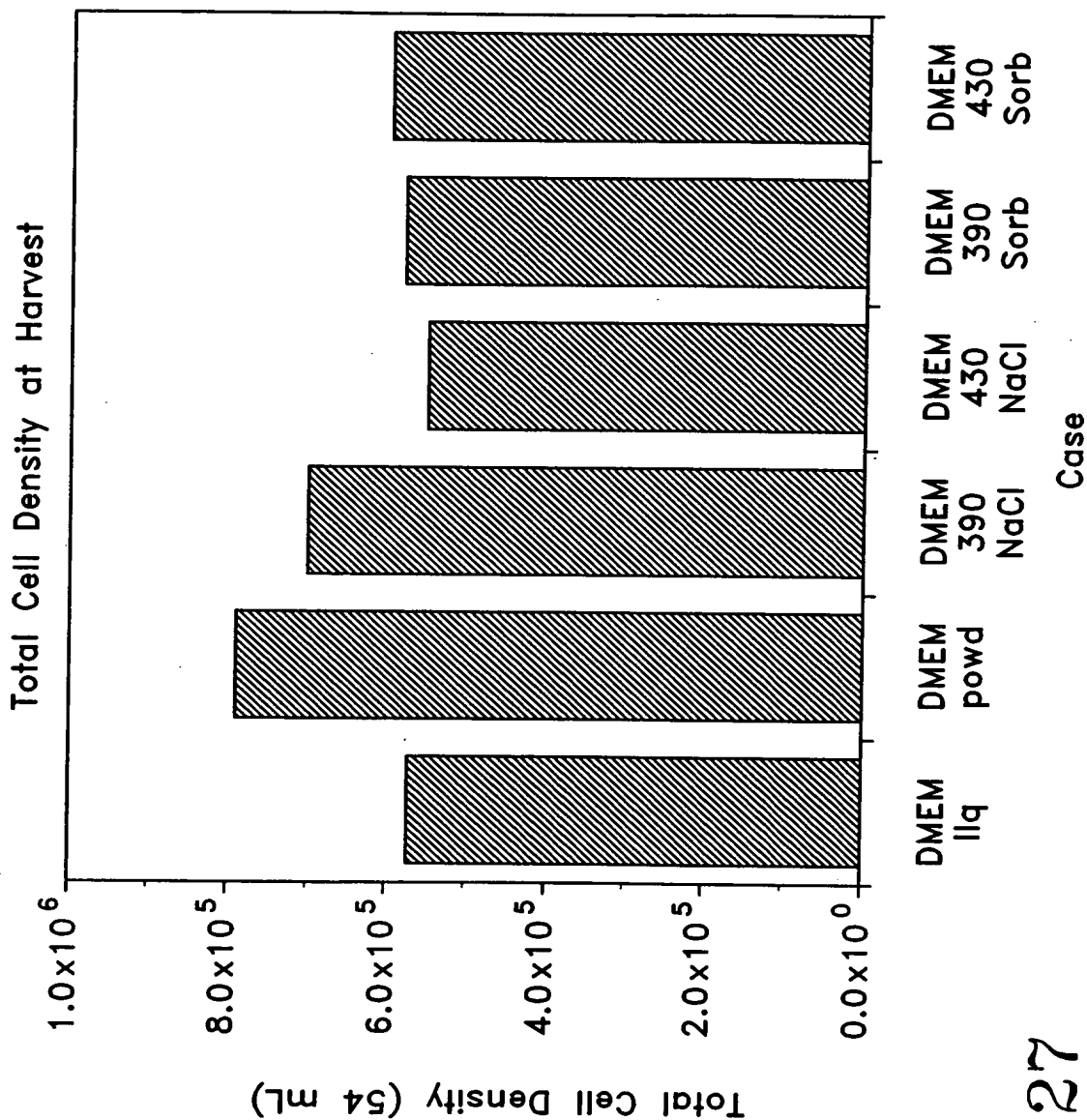


Fig. 27



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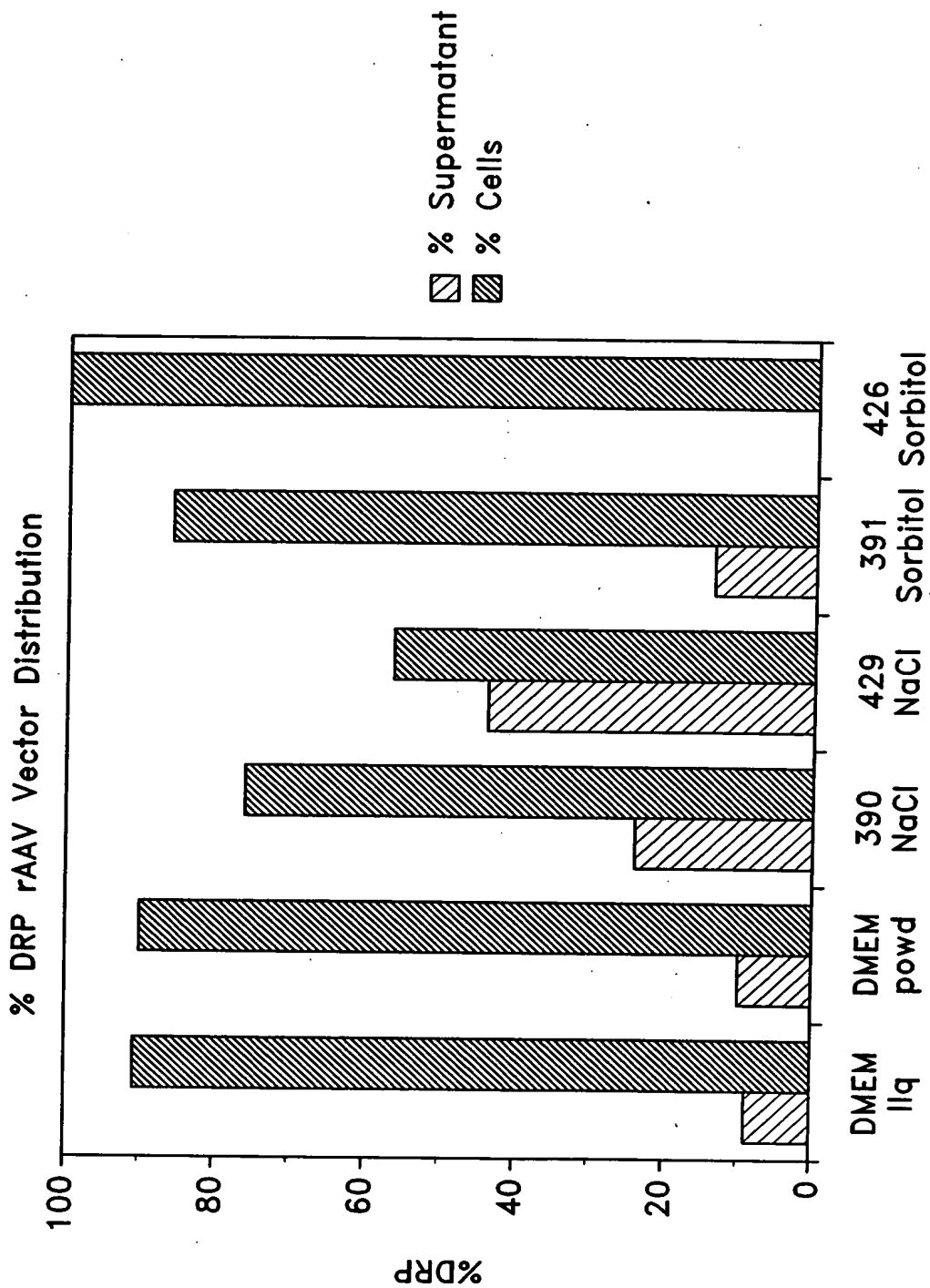


Fig. 28

Media Formulation



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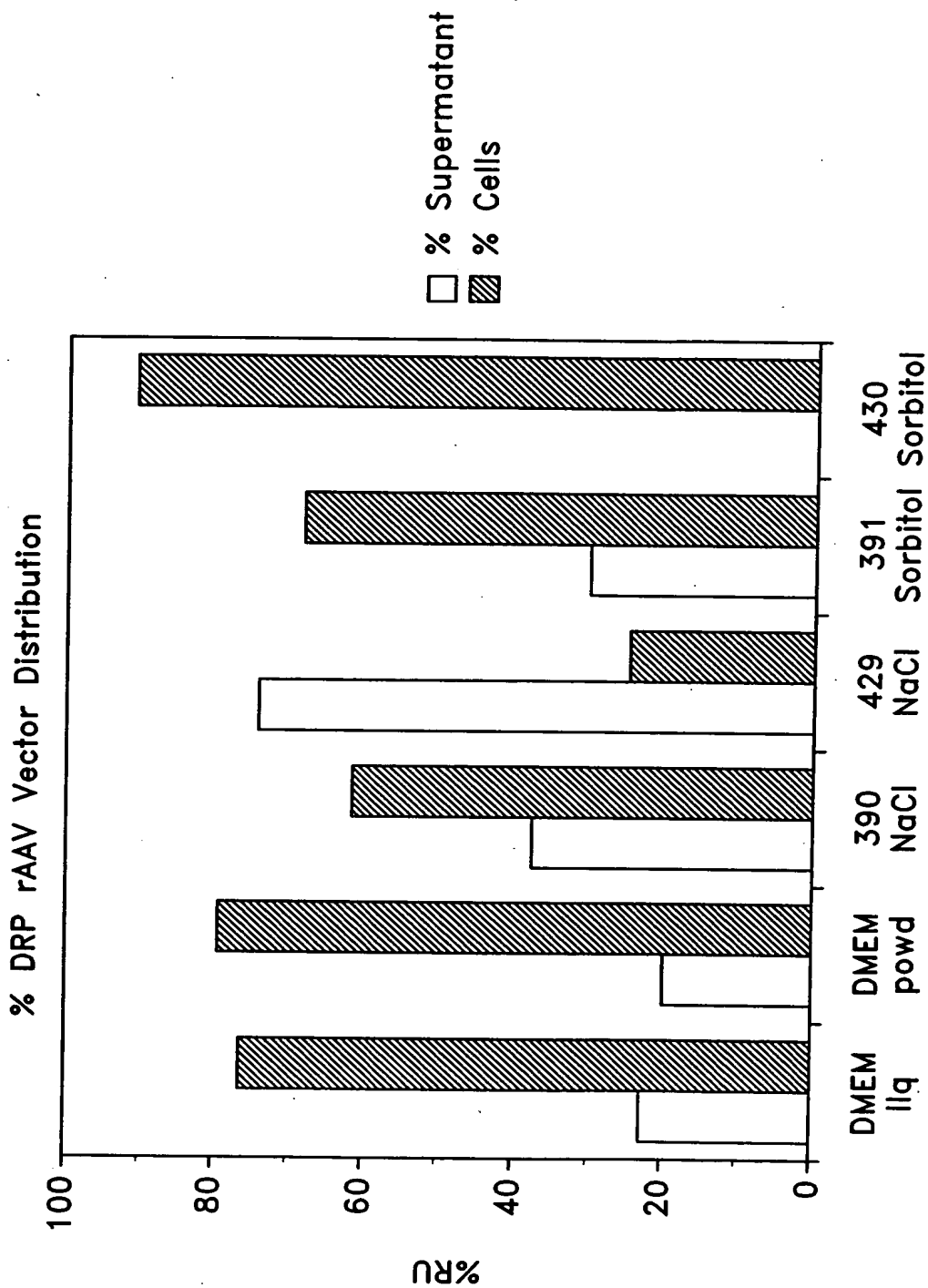
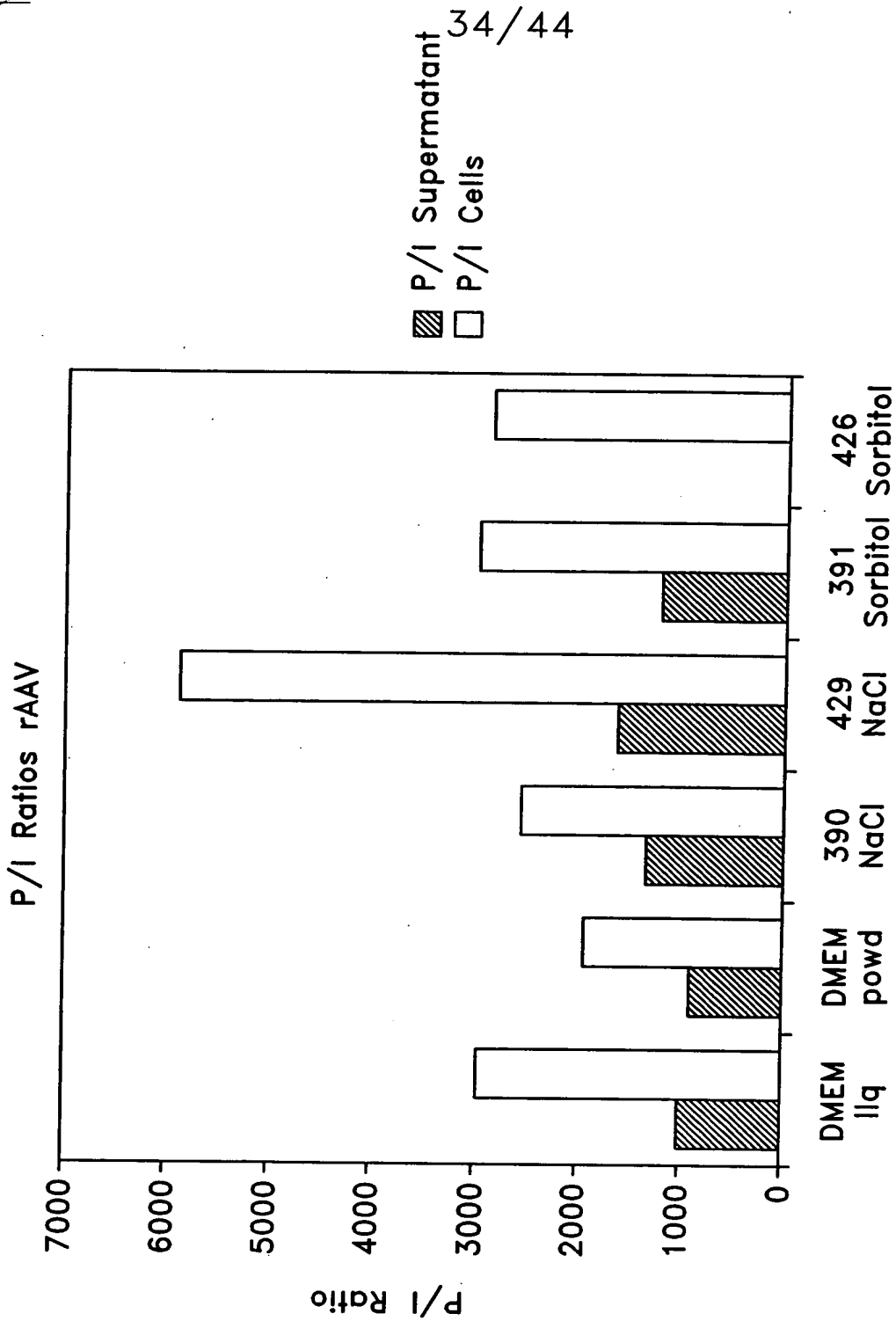


Fig. 29

Media Formulation



Media Formulation

Fig. 30



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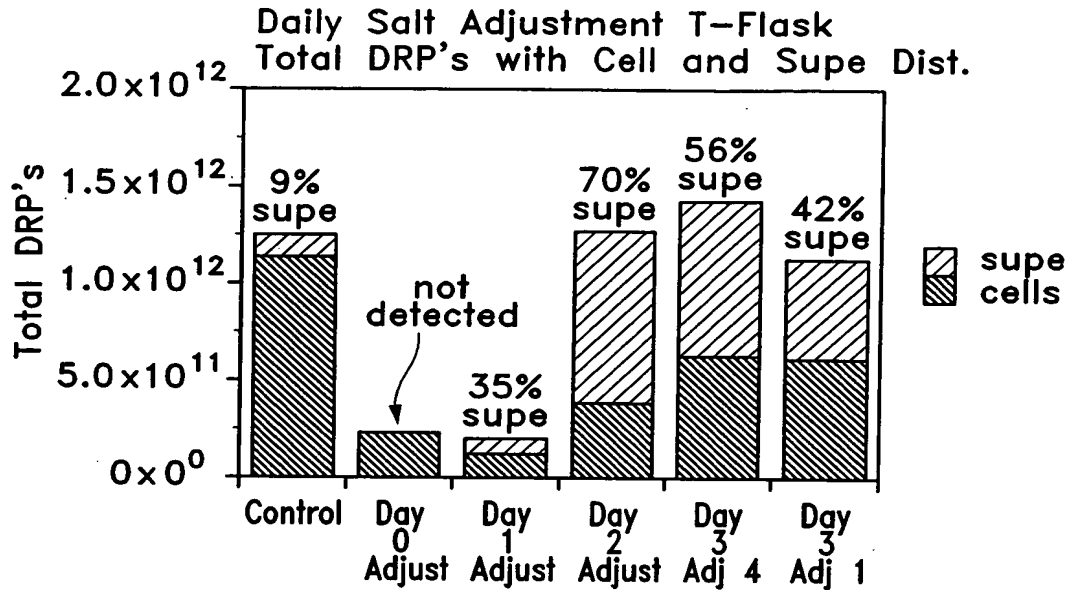


Fig. 31A

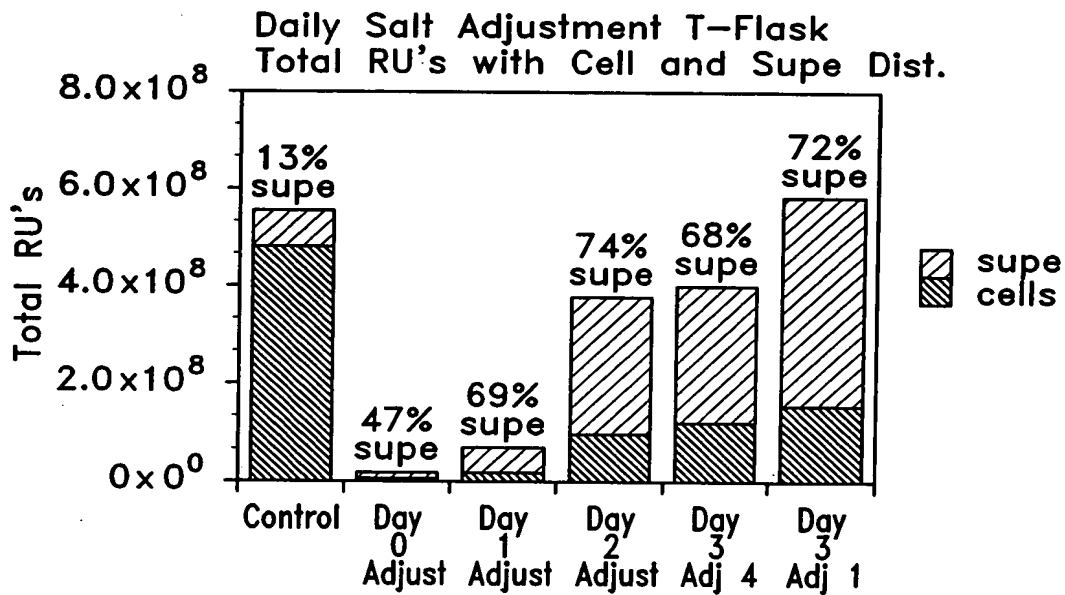


Fig. 31B

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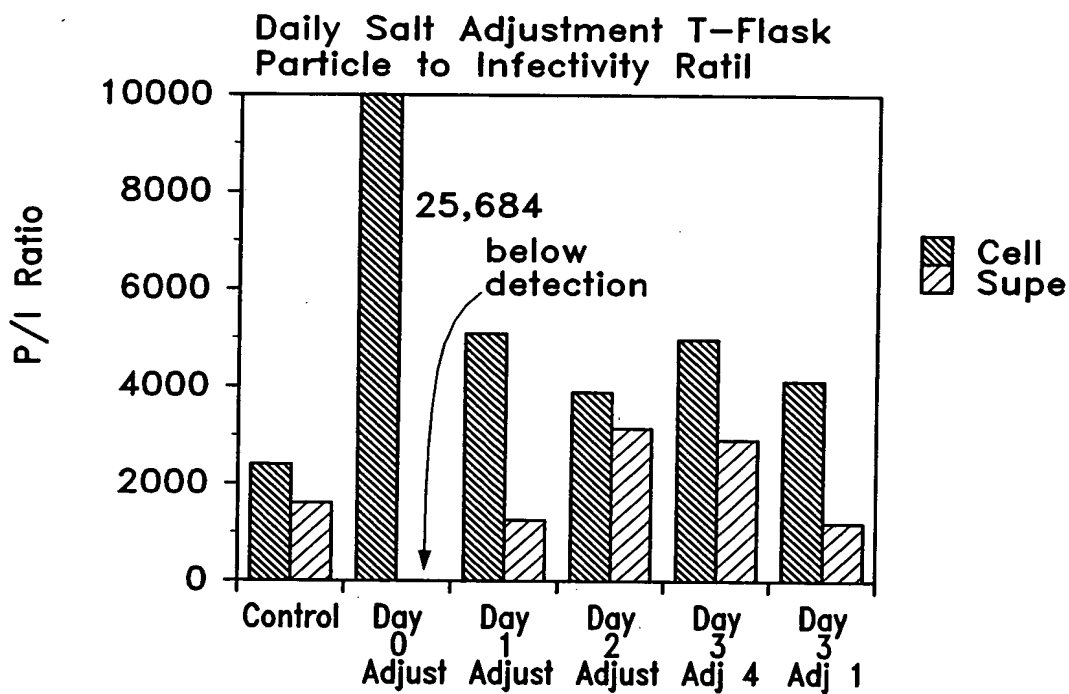
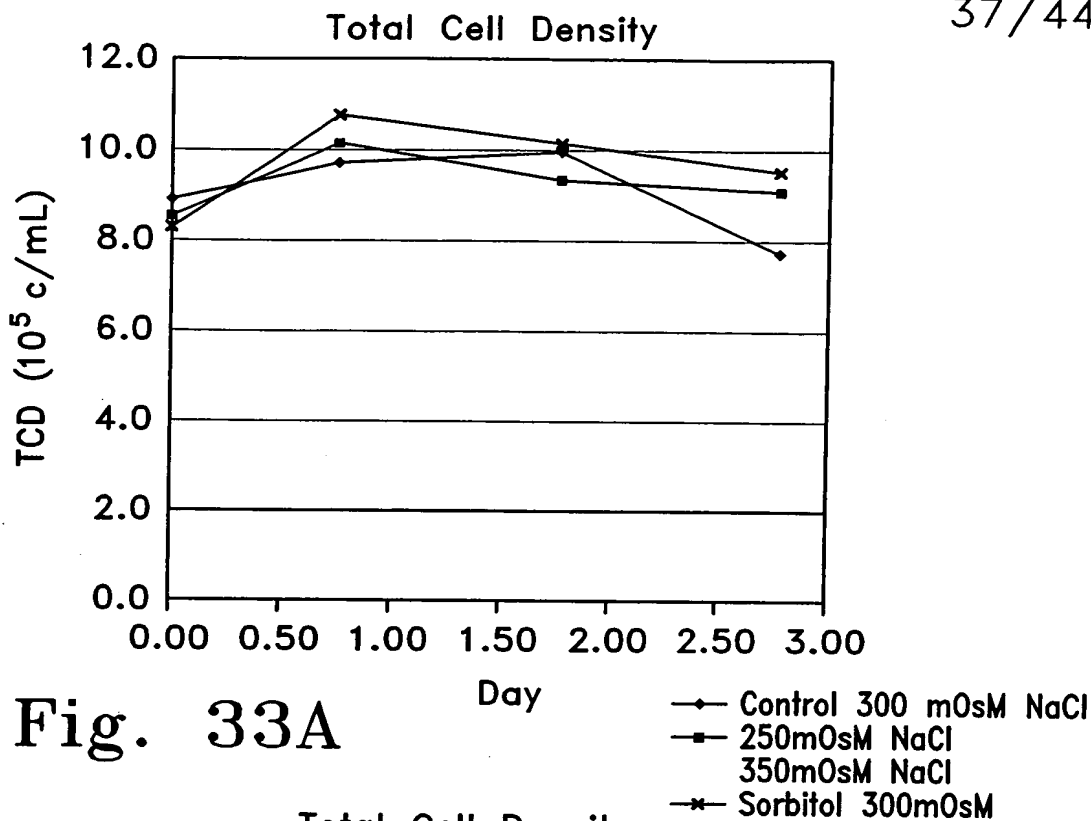


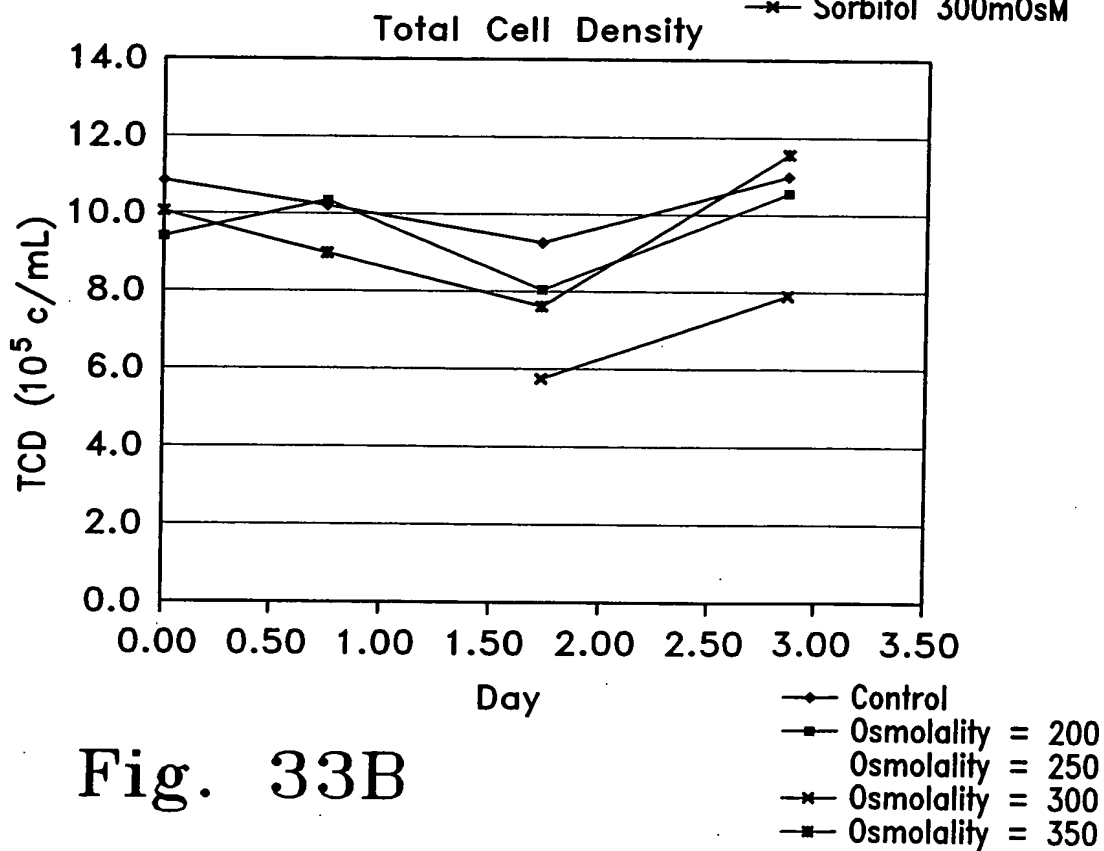
Fig. 32



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**Fig. 33A**



**Fig. 33B**



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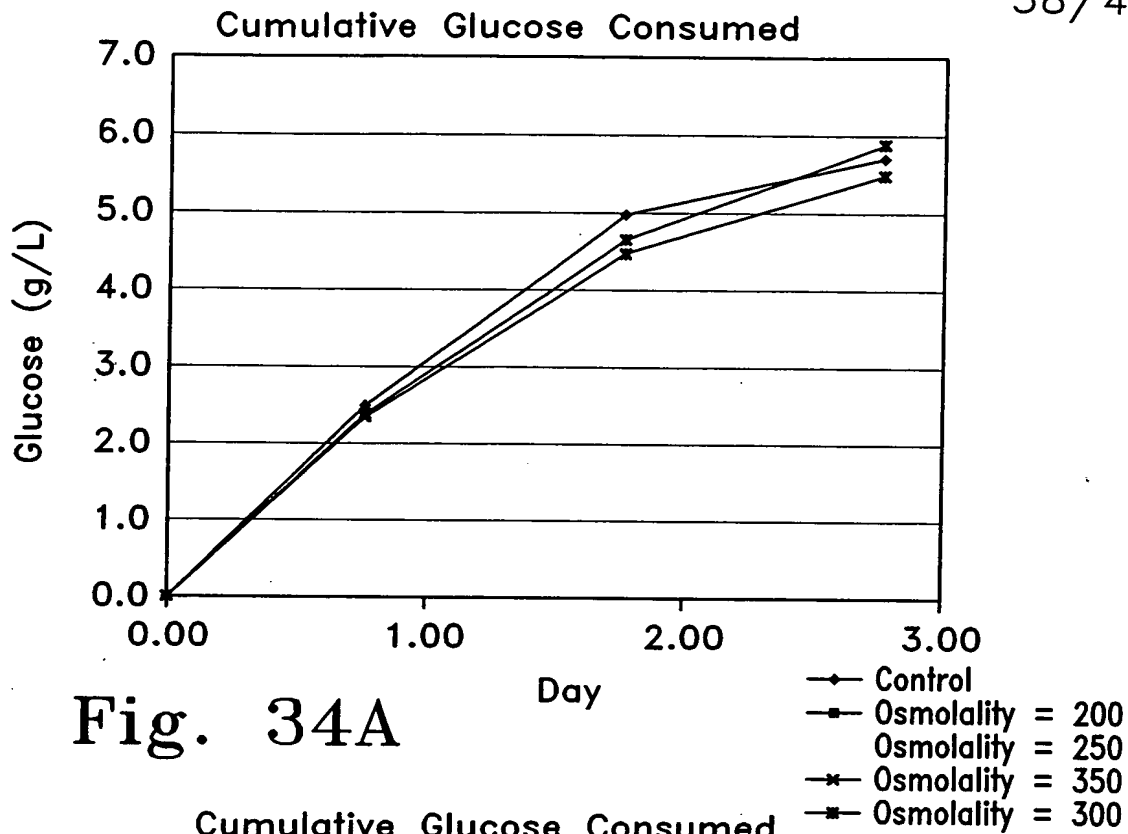


Fig. 34A

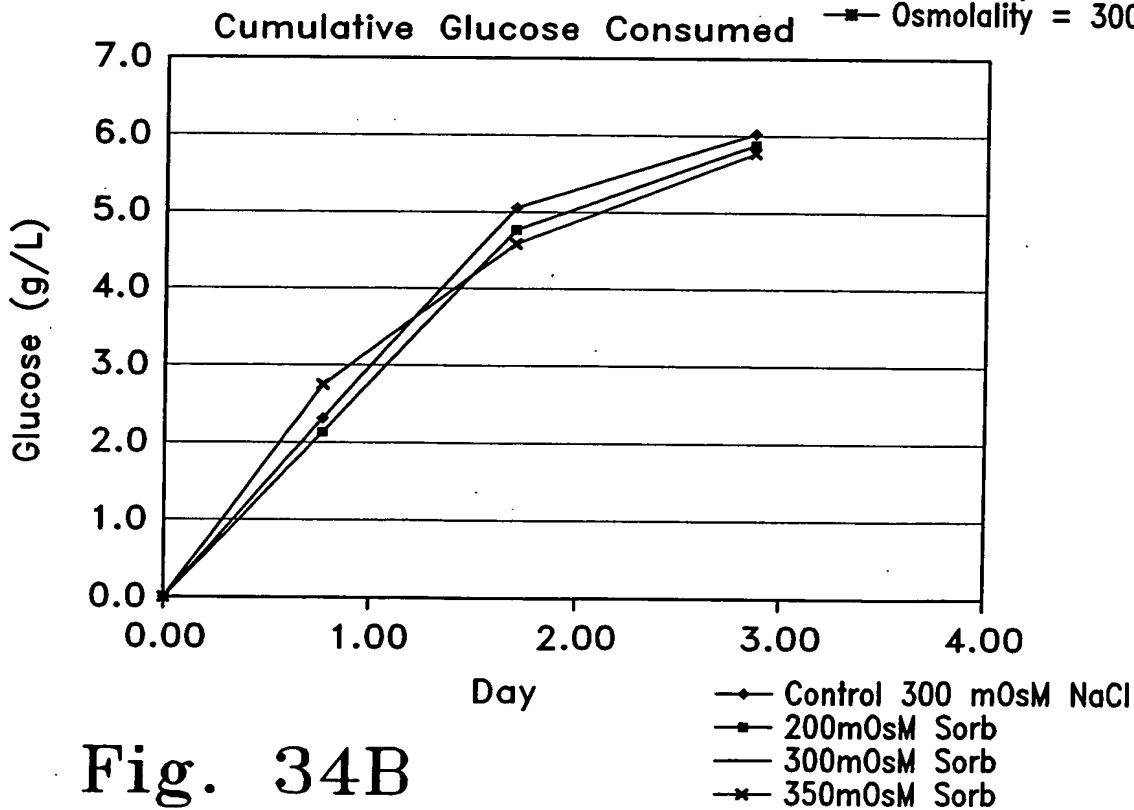


Fig. 34B



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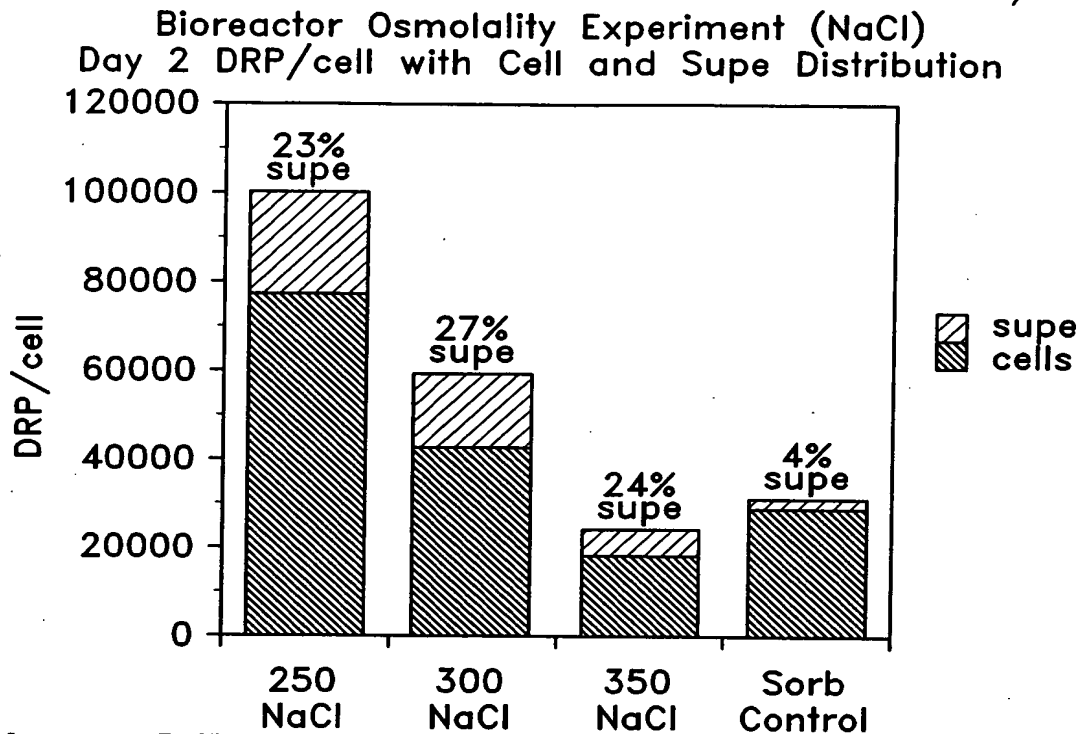


Fig. 35A

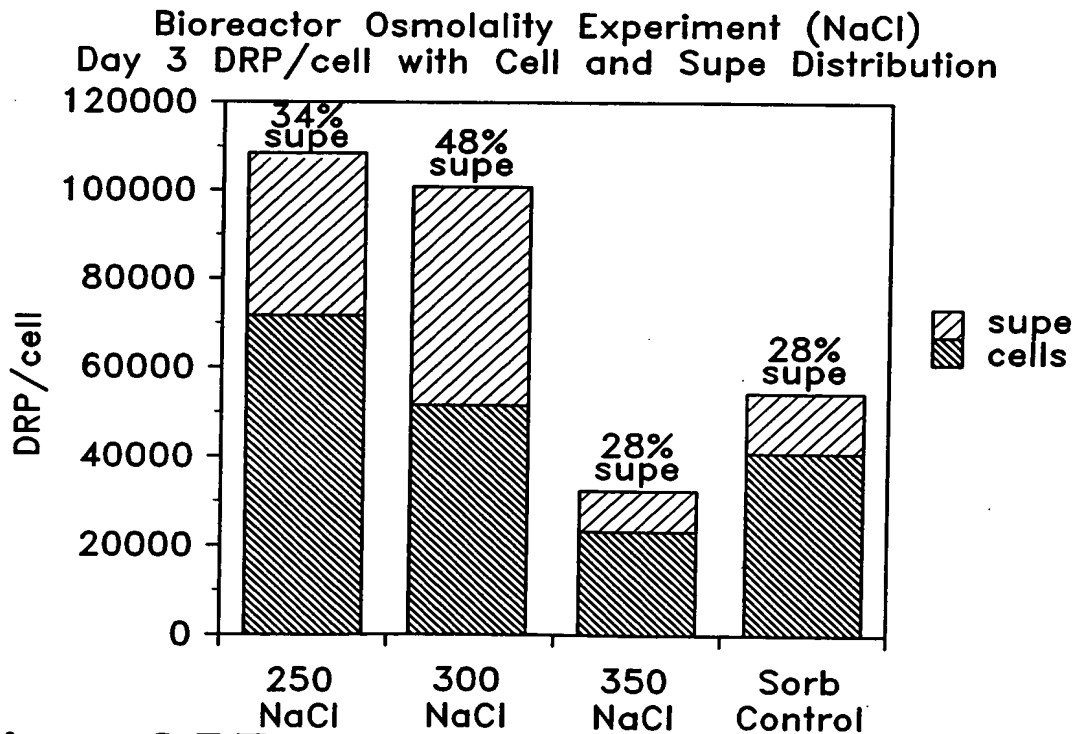


Fig. 35B



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Bioreactor Osmolality Experiment (Sorbitol)  
Day 2 DRP/cell with Cell and Supe Distribution

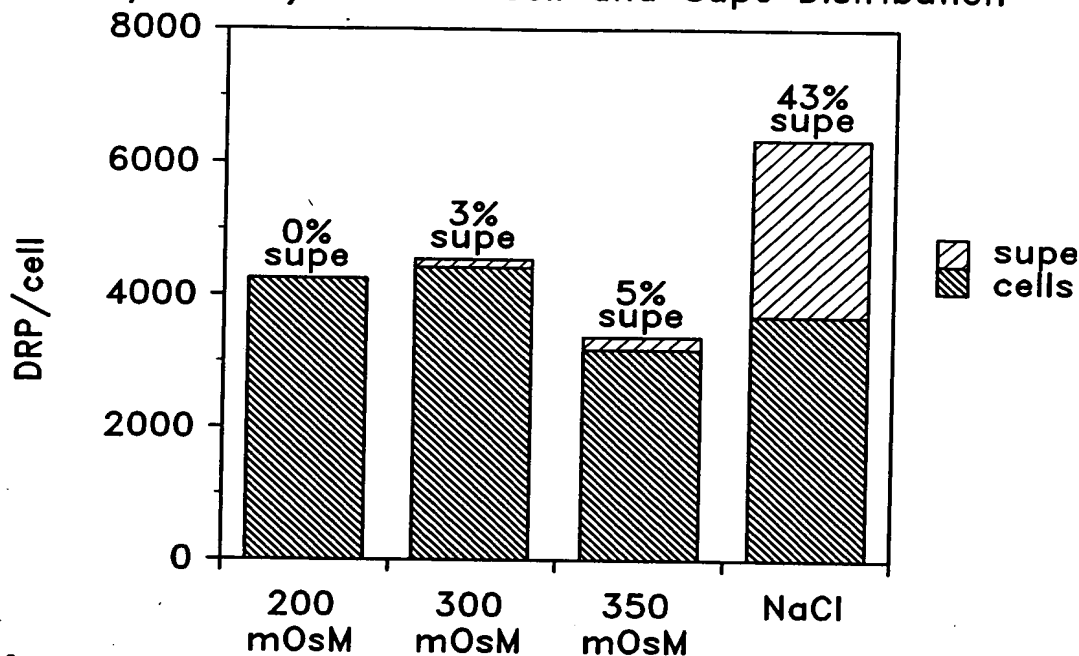


Fig. 35C

Bioreactor Osmolality Experiment (Sorbitol)  
Day 3 DRP/cell with Cell and Supe Distribution

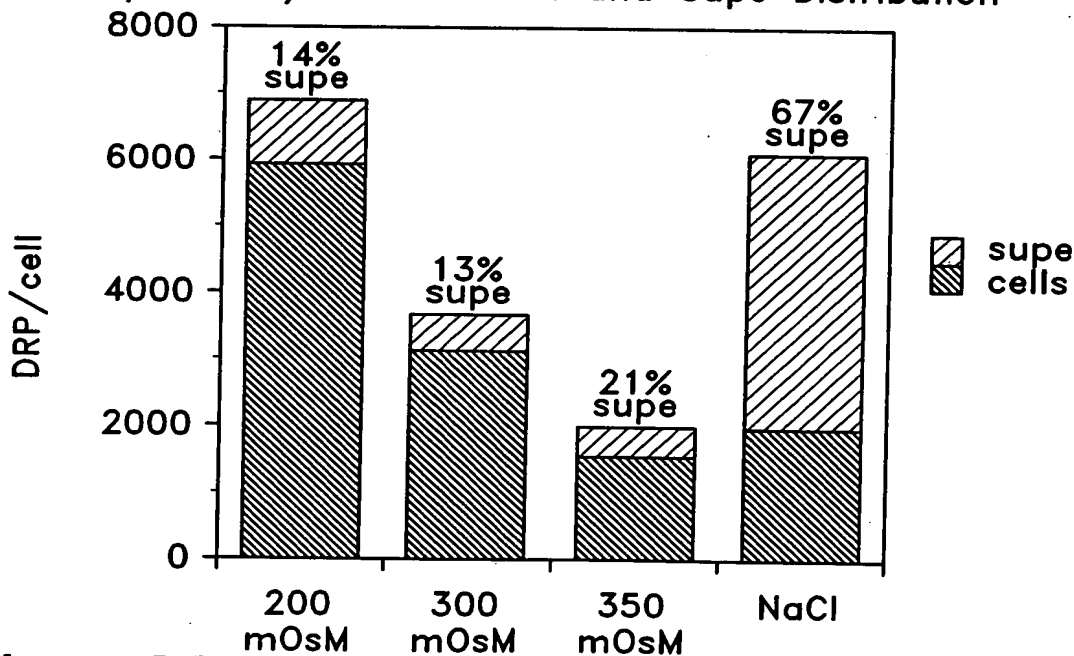


Fig. 35D



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Bioreactor Osmolality Experiment (NaCl)  
Day 2 RU/cell with Cell and Supe Distribution

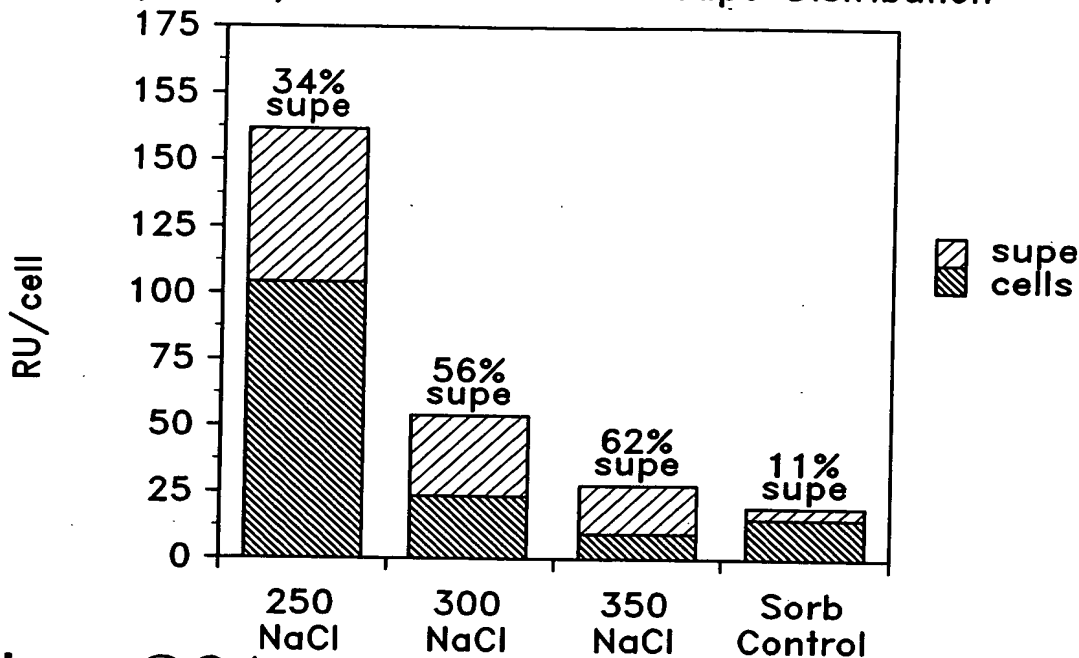


Fig. 36A

Bioreactor Osmolality Experiment (NaCl)  
Day 3 RU/cell with Cell and Supe Distribution

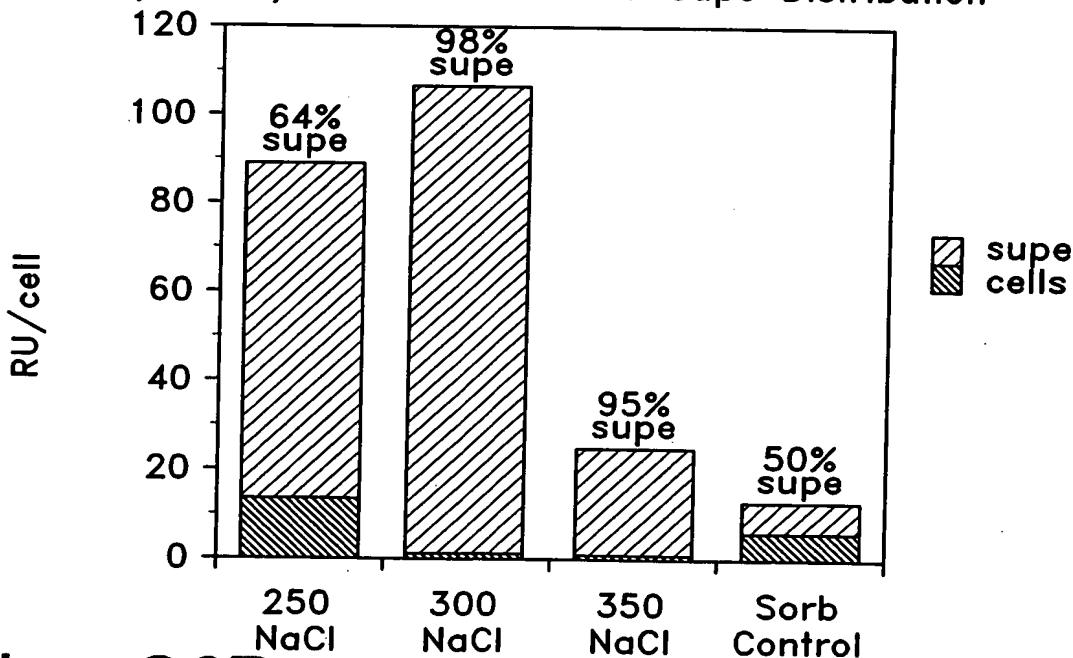
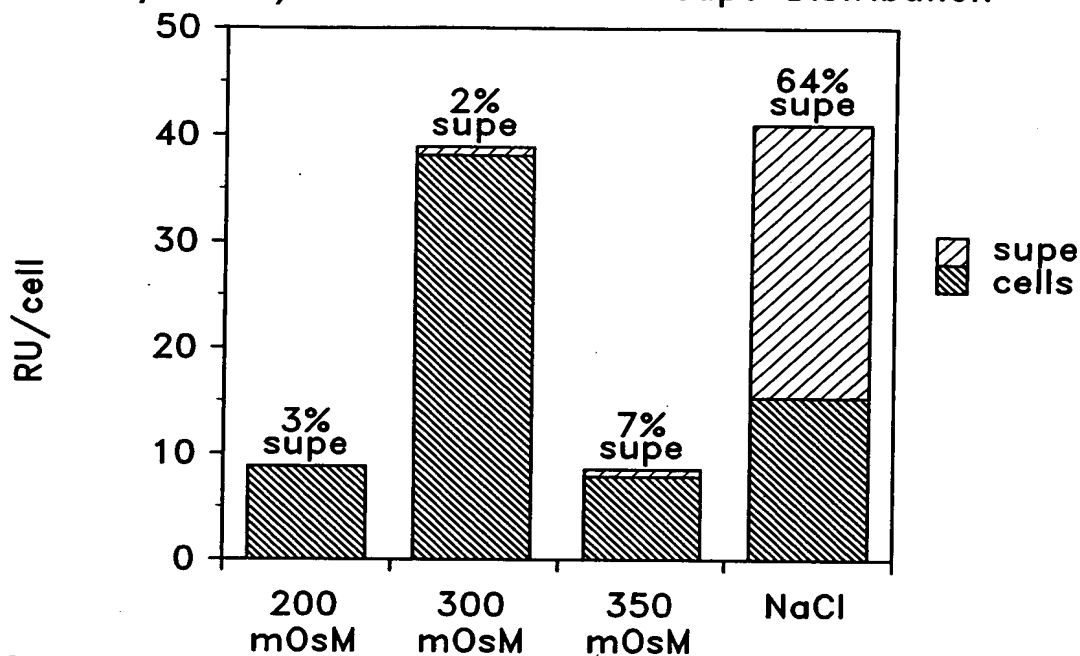


Fig. 36B



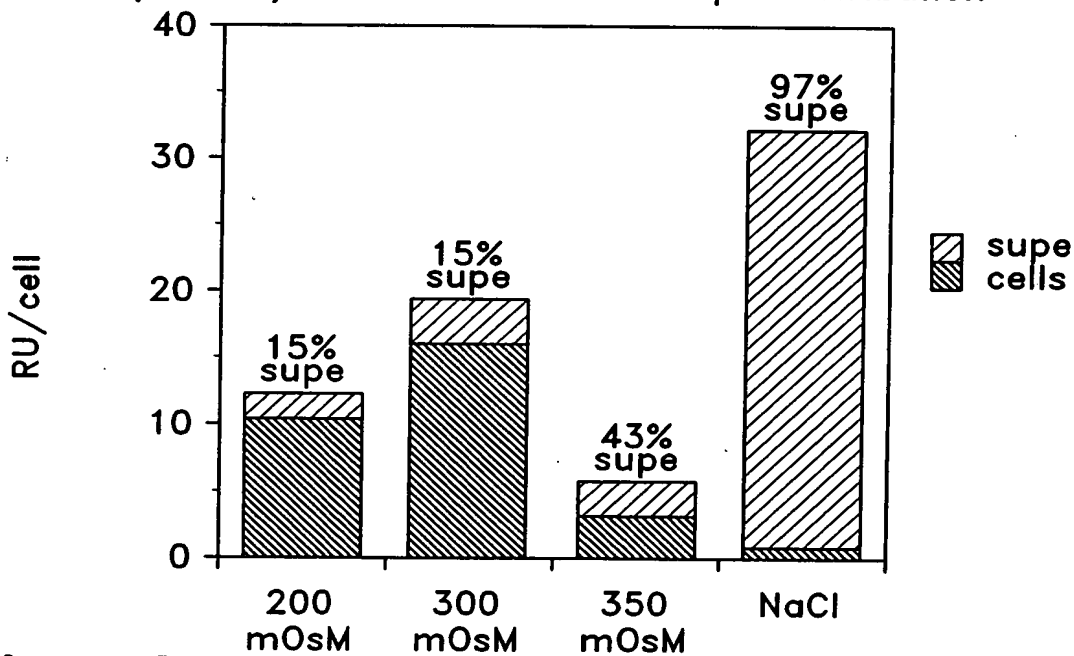
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**Bioreactor Osmolality Experiment (Sorbitol)**  
**Day 2 RU/cell with Cell and Supe Distribution**



**Fig. 36C**

**Bioreactor Osmolality Experiment (Sorbitol)**  
**Day 3 RU/cell with Cell and Supe Distribution**



**Fig. 36D**



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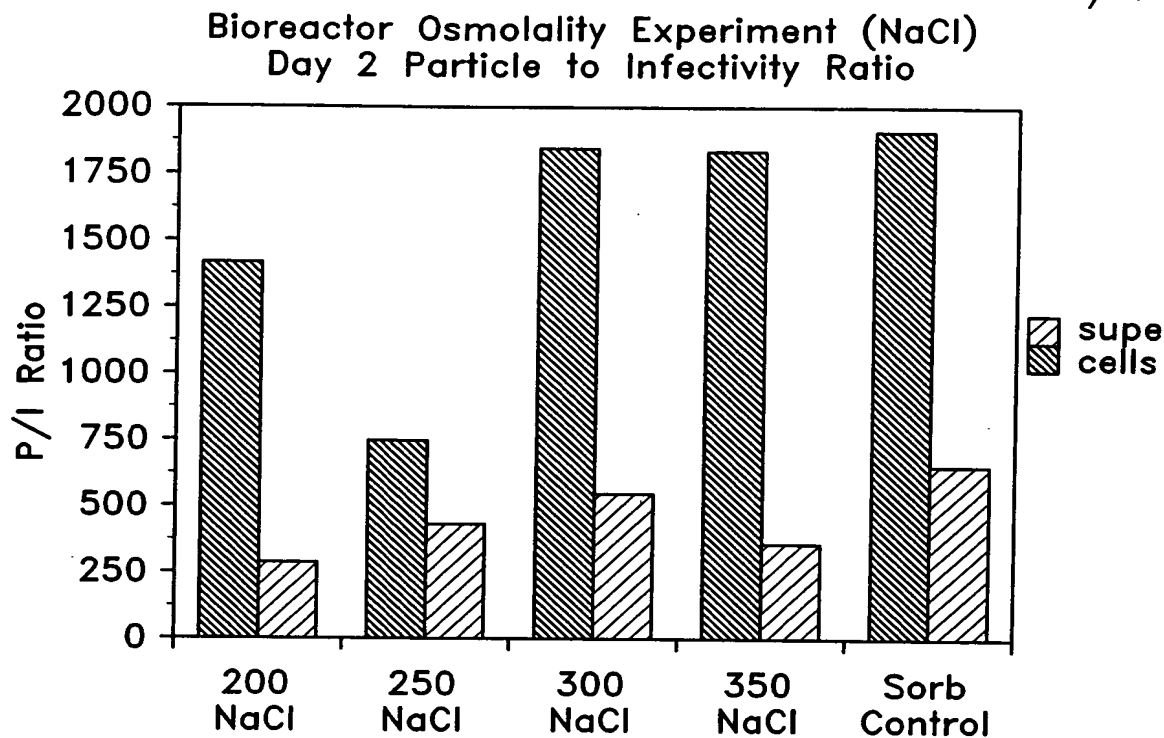


Fig. 37A

P/I Ratio D2

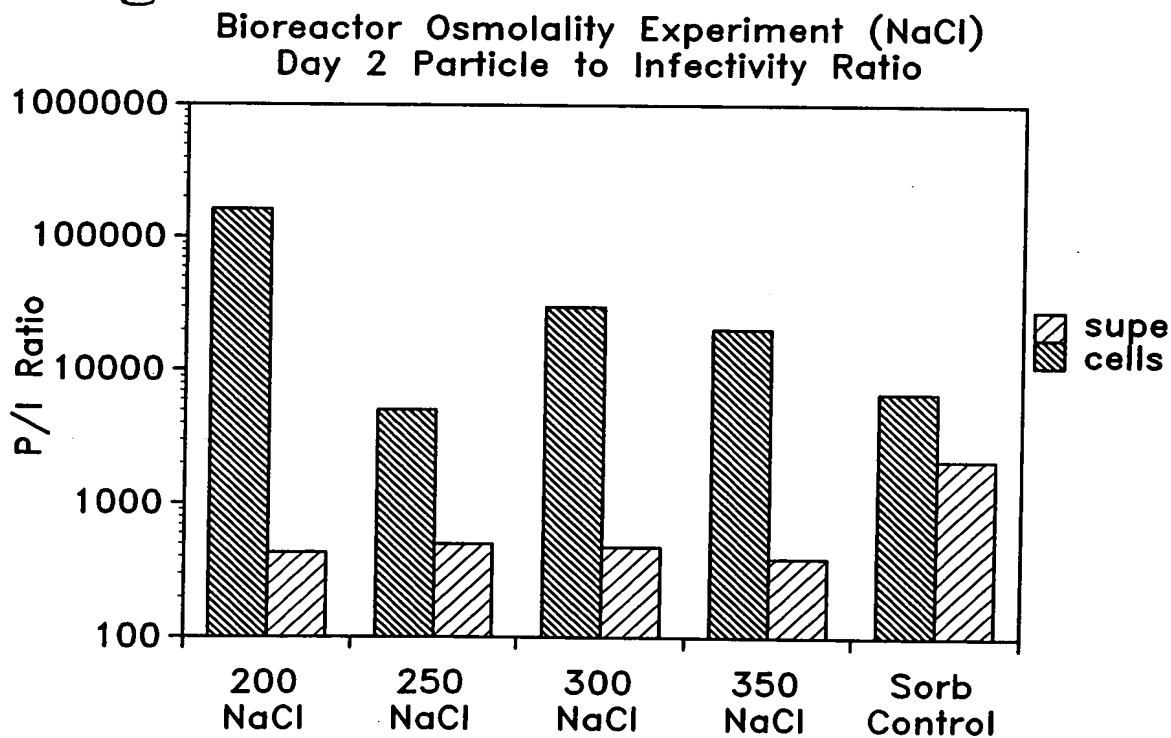
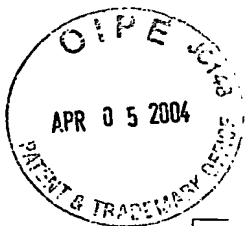


Fig. 37B

\*Base dump b tween day 2 and day 3



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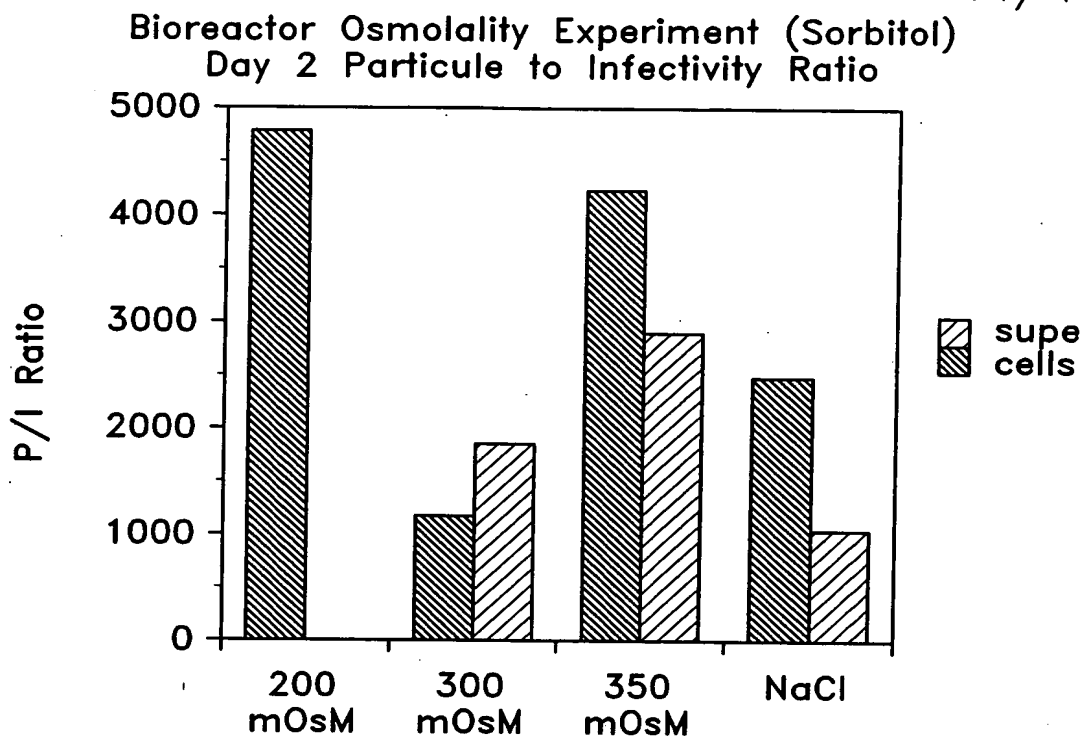


Fig. 37C

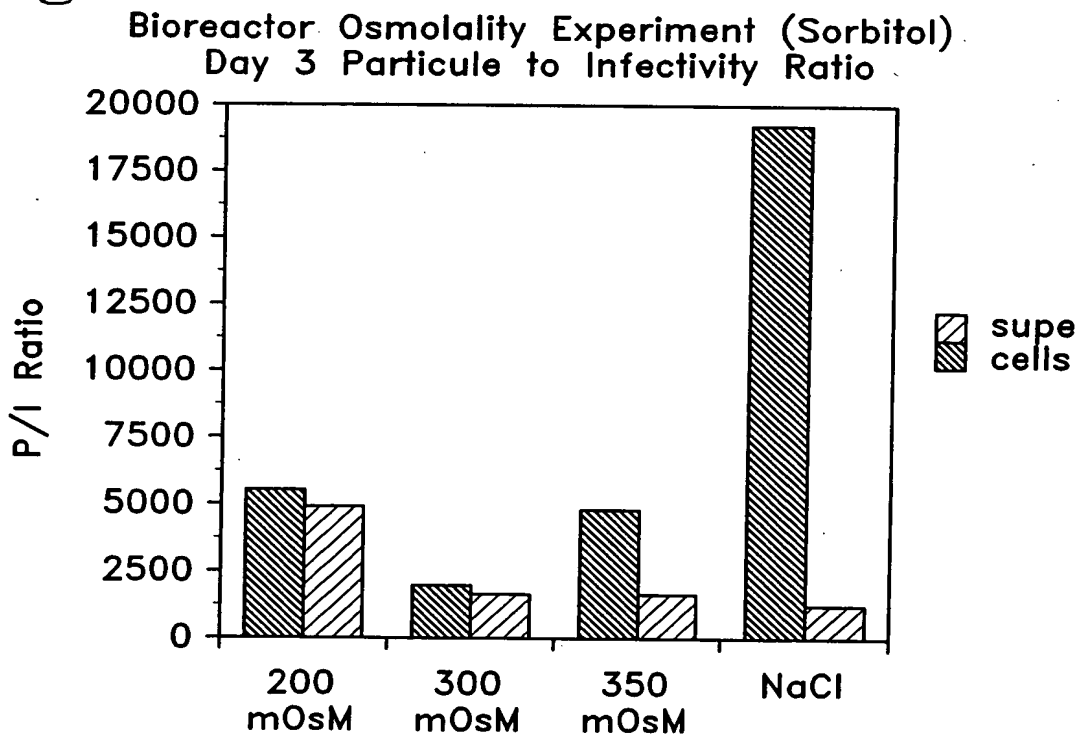


Fig. 37D